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Addressing behavior and performance issues that threaten quality and patient safety: What your attorneys want you to know☆

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ABSTRACT

Disruptive ("non-teamwork-promoting") behavior by medical professionals undermines healthcare quality and a culture of safety, decreases staff morale, increases healthcare expense and increases litigation risk. Despite these untoward outcomes, disruptive behavior, defined as any performance that impacts the team's ability to achieve intended outcomes, often goes unacknowledged and unaddressed. Aggressive outbursts and other unprofessional behaviors frequently arise in high stress arenas, such as operating rooms, medical–surgical units, and intensive care units. Passive–aggressive and passive actions also interfere with individual performance, team cohesion, and system reliability. Given these observations, it's no surprise that pediatric cardiothoracic surgeons, cardiologists, and their leaders – in fact all healthcare professionals – must sometimes deal with issues of personal behavior that impair healthcare team performance, cross-discipline relationships, and patient safety.

This article begins with a problematic clinical event, then identifies key concepts for dealing effectively with colleagues whose behavior is not consistent with professional standards, group policies or practices. Five principles, reinforced by several action oriented tips and practical tools, are offered as guides to promoting professionalism and professional accountability in support of quality team-oriented care, patient safety and, if necessary, legal defense if disruptive colleagues challenge disciplinary interventions. The principles and tips revolve around issues of justice, assembling data that permit reasonable certainty that action is appropriate, minimizing or eliminating conflicts of interest between reviewers and those reviewed, aiming to help those whose performance is reviewed achieve insight about their disruptive behavior's impacts, and, ultimately, restoration to the norms of professional practice. Readers are challenged to consider how to increase the reliability of their processes; maximize colleagues' opportunities for receiving performance- and professionalism-related feedback; serve patients, families, and colleagues well; and reduce concomitant litigation risk.

1. Introduction

Disruptive ("non-teamwork-promoting") behavior by medical professionals, defined as behavior that impacts the healthcare team's ability to achieve intended outcomes [1–5], undermines healthcare quality and patient safety [6–9]. Disruptive behavior decreases staff morale, increases healthcare expense and increases the risk of both meritorious and non-meritorious malpractice litigation [9–12]. Despite these untoward outcomes, disruptive behavior in healthcare settings often goes unaddressed. While all humans may exhibit an occasional lapse, 3 to 5% of medical staff demonstrate persistent patterns of disruptive performance [13–15]. The profound repercussions (e.g., staff turnover, medical errors) may be undeniably evident, and patients may be the target or caught in the middle [16,17]. In a 2009 survey of Physician Executives, nearly 98% (n = 2088) reported their organization had behavior problems with doctors and nurses, and more than 55% (n = 999) cited disruptive behavior episodes consisting primarily of verbal abuse (i.e., yelling, cursing, insulting others, gossiping, inappropriate joking) or non-team-promoting conduct (i.e., refusing to work together, refusing to speak to others, trying to get someone disciplined unjustly) occurred weekly or monthly [9]. In 2008, a different survey of more than 4500 respondents (self-identified as nurses (n = 2846), physicians (n = 944), administrative executives (n = 40) and 700 others) from 100 hospitals found a strong association between disruptive behaviors and quality of patient care, medical errors (71%), adverse events (67%), and patient safety issues, (51%) respectively [6]. A review of ten studies published since 2000, all of which used different survey instruments, indicated that 60% to 95% of nearly 12,000 nurses, physicians and other survey respondents had experienced or witnessed at least one episode of disruptive behavior (e.g., "verbal abuse," "work place

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intimidation" and "dysfunctional interpersonal interactions") in the past year [8]. Fully 94% of respondents reported an association between disruptive behavior and negative patient outcomes, and 17 to 41% knew of a specific disruptive-behavior-related adverse event [8]. Disruptive outbursts occurred most frequently in high stress arenas, such as operating rooms, medical–surgical units, intensive care units, emergency departments and obstetrics areas. Among pediatric nurses, physician verbal abuse accounted for almost 85% expressing decreased job satisfaction and over 66% indicating a reluctance to go to work [18]. Nurse dissatisfaction and turnover are also consequences of failures to address disruptive behavior. Studies have found that 30% (n = 948) of respondents knew a nurse who left employment as a result of physician disruptive behavior [13].

Given these findings, it's no surprise that pediatric cardio-thoracic surgeons, cardiologists, and their leaders – in fact all healthcare professionals – must be prepared to promote professional accountability by dealing with behavior that impairs healthcare team performance and patient safety. This article presents a clinical story, then identifies key concepts, cognitive approaches, and specific actions readers may find useful – after review with their legal counsel – for dealing effectively with colleagues whose performance is not consistent with professional standards, group policies or practices. We do not offer legal advice. Rather we suggest topics for conversations among readers, medical leaders and their legal representatives. One purpose of this paper is to suggest how safety and quality of medical care might be maximized and the chance of being sued for malpractice or employment-related actions minimized. Another goal is to focus on medical leaders' and legal representatives' duties to promote ongoing dialog about ways to make healthcare kinder and safer.

2. The clinical case

You, for purposes of this paper, are section chief of cardio-thoracic surgery at an academic medical center. You are rounding when a fatigued-looking surgical fellow ("Dr. SF") asks whether you could "give me some advice." Dr. SF begins by saying she hesitates to say anything, but is concerned about a patient. She tells you that earlier that morning, a very experienced surgeon (we'll call him "Dr. VES") asked her to scrub in on an "interesting" case involving a 10 month old female child with a history of pneumonia and recent diagnosis of a large ventricular-septal defect (VSD), right ventricular hypoplasia, tricuspid valve hypoplasia and pulmonary hypertension. You agree this is a rare presentation and ask for details:

- Dr. SF was delegated responsibility for obtaining the parents' informed consent but had neither seen the patient nor been briefed by Dr. VES on the child's history or condition,
- Dr. SF filled out the consent form by copying from the medical record a description of the intended procedure: a VSD repair and creation of a conduit from the right ventricle to the pulmonary artery. The patient's family spoke limited English, so, after some delay, a translator was found to assist. The family had no questions and signed the document.
- Dr. SF returned to the OR and reported the consent was signed, whereupon Dr. VES replied he had changed his mind about the procedure, and instead planned to place a pulmonary artery band and a Blalock–Taussig (B–T) shunt. No note describing the new approach appeared in the record.
- Dr. SF said she would get a revised consent. Dr. VES said "Don't bother. Getting a translator will cause another delay, and the consent form you've got already says, 'and any other necessary surgery,' and I deem the PA band and B–T shunt necessary. If you leave, I will hold you personally responsible for even a minute delay for some silly paperwork the family will not understand anyway."

You ask Dr. SF if she had reviewed the cath conference notes. She responds that "the cath conference notes weren't in the chart." When you ask why she didn't follow-up, she replies, "NO TIME — *he* can run late, but not the rest of us. I will not be screamed at in front of the entire staff again." Dr. SF said the anesthesia resident had just as little pre-op information because the resident placed an arterial line in a vessel that had to be sacrificed during the operation because of the change in plans. In addition, the resident asked Dr. SF if it was unusual not to monitor pulmonary artery pressures or draw arterial blood gases (ABGs) during pediatric heart surgery. Dr. VES overheard, looked up, and said, "They're monitored. I can tell these things by observation and palpation alone, and if you had half a brain you could too."

You ask Dr. SF how the child is doing. She says: "Not well. She went to the PICU with metabolic acidosis (ph 7.1) and started seizing." Wanting to follow up with the child's care, Dr. SF had asked the PICU attending if she (Dr. SF) could participate in the post-op care. However, the PICU attending responded, "Better not. I don't want to put you in that position. Dr. VES told me he didn't need or want anyone's help. In fact, he just told the cardiologist to leave the unit because the cardiologist suggested re-operating to adjust the band to reduce the pulmonary artery pressures." The fellow concluded the conversation saying, "I don't feel this child got good care, and I'm sure the family doesn't know what is going on. I asked Dr. VES to sit down with the family, but he told me to "go hold their hands" because he had to start another case. I don't want to get anyone in trouble, and I don't want to incur Dr. VES's wrath, but I feel bad about this case. I know the child is not doing well, but I don't have enough information to talk to the family. What if they start asking me questions when I see them?

How might you respond? Could Dr. SF's story be true? Every story has at least two sides. You wonder whether the event had been reported per medical center quality and safety policies [19,20]. If not, who should have reported it? If an event analysis (Root Causes Analysis) [19–26] and perhaps a Morbidity & Mortality & Improvement (MM&I) Conference [27–30] are conducted, will the group focus on systems and human accountability [4]? Despite your leadership role as section chief, you are less than certain about your authority and obligations. After all, these jobs come with little or no orientation or training, and you don't recall ever actually reading the medical staff bylaws or discipline section of the faculty manual.

Pending information gathering, it seems someone should review this case. But who? If much of what you've heard is correct, action is clearly warranted, but what? A "chat" with Dr. VES [31] or something more? But if it comes to "something more," there may be a problem: you know the hospital CEO appreciates Dr. VES for his productivity, ability to obtain substantial charitable gifts from wealthy donors, and successful treatment of the CEO's grandchild two years ago. You thank Dr. SF and indicate you will report the case to risk management for review. Before continuing your rounds, you call the PICU attending, who confirms Dr. SF's PICU-related story (e.g., Dr. VES dismissing the cardiologist and wanting no PICU involvement by other providers, and nurses' concerns that the family does not understand what is happening). The PICU attending reports the seizures are under control, but the pulmonary artery pressures are too high. He says one cardiologist "thinks the acidosis might be caused by the PA band allowing over-circulation," and added that the cardiologist thinks the shunt might be too big. The PICU attending said the cardiology team "repeatedly paged Dr. VES to discuss taking the patient back to surgery, but he didn't answer." The PICU attending concludes by saying he is not optimistic about the child's long term prognosis.

If one characteristic of a profession is self regulation [32], do surgical colleagues have an individual obligation to respond based on a trainee's report? If obliged to respond, to what level? What if the colleague has a departmental leadership role, such as chair, vice chair, or section chief? Or is it sufficient simply to report the event to risk management or quality departments (if they exist) and let "the organizational system" run its course [32,33]? And if the fellow or faculty member feels the need to act as a result of concerns voiced during

"casual" corridor conversations or formal walk-arounds [34,35], what are the expectations and procedures for acting? Leaders and healthcare professionals share goals of promoting excellent care and an environment that fosters – not threatens – quality [3,4,36,37]. Leadership groups will sometimes not know and will sometimes disagree about the answers to these questions. These are not reasons for failing to proceed, but reasons for dialog. The point is that leaders need to understand, develop, and implement fair, reliable processes for addressing questions about behavior, performance and outcomes [33,37–43]. Having "adult conversations" and taking action may not be comfortable or easy, but if any of Dr. SF's story is accurate, inaction will be worse than intervening [44–49].

We propose five principles to guide efforts to act in the best interests of patients (improving healthcare quality and safety), colleagues (promoting professionalism and professional accountability), clinical and administrative systems, and other healthcare team members (enhancing teamwork). We then discuss an "Accountability Pyramid to Promote Professional Performance" (Fig. 1) [4,31,50], a tool for stratifying tiered interventions for dealing with non-teamwork-promoting performance. We conclude with recommendations that will challenge readers to consider how to increase the reliability of their processes, maximize colleagues' opportunities for receiving performance- and professionalism-related feedback, and reduce unexpected adverse outcomes and malpractice and employment-related litigation.

3. Principles for promoting professionalism

As you (section chief) reflect on Dr. SF's report and your conversation with the PICU attending, you conclude that the situation needs a review by a team of neutral third parties whose findings should be shielded from discovery by any potential plaintiffs.* During rounds, you take a brief look into the PICU and confirm that the clinical outcome appears less than intended. You then call the Risk Management Department to let them know about the case and raise concerns about lapses in documentation, verbal communication, performance and teamwork. A risk manager confirms the case will be reviewed by the Quality Committee. The Quality Committee may in turn choose to conduct an event (Root Causes) analysis according to policy [4]. You are told members of the Quality Committee will likely interview Drs. VES, SF, and other participants (quality information gathering) in the interest of improving care [4,19,20]. You are also told that as section chief you will be asked to participate in a Root Causes Analysis.

You wish you had more training in evaluating performance, providing feedback, and promoting professional accountability. These can create potential for uncomfortable interpersonal conflicts [51], and you ask yourself, "what if this were my case?" Answering your own question, you rehearse five guiding principles for assessing performance, providing feedback, promoting accountability, decision making, and action planning:

1. promoting justice,
2. seeking freedom from conflicts of interest,
3. obtaining reasonable certainty about systems failures and individual performance problems,
4. if feedback or disciplinary measures are needed, administering them in ways that maximize the recipient's likelihood of gaining insight, and
5. providing feedback and conducting disciplinary interventions in ways that first aim to restore your colleague to responsible, teamwork-promoting professionalism, but failing that, deal fairly in disengaging from those unwilling or unable to change.

* Discovery laws and peer review protections differ by state. Consult counsel for your particular circumstances.

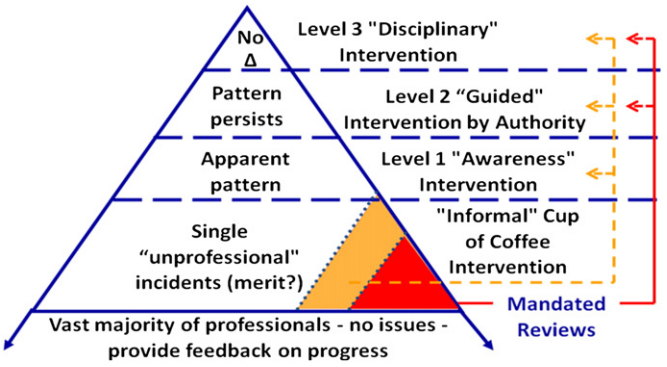

Fig. 1. Promoting professionalism pyramid.
Source: Adapted from Hickson GB, Pichert JW, Webb LE, Gabbe SG. A complementary approach to promoting professionalism: Identifying, measuring, and addressing unprofessional behaviors. Acad Med 207;82:1040–48. Used with permission.

3.1. Justice

Promoting justice requires general understanding of the rights and responsibilities of all medical team members involved in healthcare delivery. At the most basic level, justice means treating others as you want to be treated, generally best achieved by scrupulous adherence to organizational conduct policies and other governing documents. Promoting justice also means consistent use of mandated procedures that demonstrate commitment to quality and safety. Specific justice-related questions might include:

- What is the relationship between the professional and the organization? Any follow-up actions will be governed by the relationship (e.g., as an employee, independent contractor, voluntary medical staff member, full-time, part-time, locum tenens?)
- What are the organizational sources of "authority"? To whom does the individual report? These may be defined by contract (the professional and the institution agreed to certain things), medical staff bylaws, organizational rules and regulations (parameters of conduct), faculty handbook (academic rights and obligations), surgical privileges (authority to do certain procedures) or other documents. All persons should expect procedures that protect their patients and colleagues, but that also protect them, their faculty status, and their clinical privileges from capricious leadership conduct. For example, Dr. VES may have hospital privileges to enter the OR. He may also have tenure to protect his academic status. Processes and standards for restricting or removing either will differ. Dr. VES's tenure status will protect his academic position, but does not mean he is competent or permitted to enter an OR and perform procedures.
- What are the external sources of authority? Society has expectations that come in the form of state medical license requirements (practitioner's basic legal duties and authority), mandated state or federal event reporting laws (certain cases may require external scrutiny), medical malpractice case law (describes legal duties), Medicare Conditions of Participation and regulations (federal patient rights and medical care requirements), and Medicaid regulations (state patient rights and medical care requirements).
- Who, or what body(ies) in the organization, has the authority to review, decide, act and impose consequences for system failures and/or individual performance issues?
- What documentation is required and when is it required? Likewise, know and avoid problematic documentation, such as recording "notified risk management about substandard performance." Such notes neither advance the institutional quality process, nor do they discharge the writer's obligations.
- What are the individual's "due process" rights and where are they found?

Many organizations have no single source for accessing this information, so answers may be elusive, maybe even conflicting. The challenge is compounded if you have to find, read and understand the implications of governing documents in the midst of dealing with a bad outcome. Organizations should provide quick access to legal consultation and, perhaps more important, training about basic elements of organizational processes for promoting professional accountability. The goal of such training is not that leaders retain all the information, but primarily so the first steps in the process are executed well. Institutional lawyers or risk managers must be prepared to consult quickly about which authorities apply. Such dialog will increase the chances of right decisions, quality of care improvements, and professional interventions without creating financial risk. Such consultation is particularly important if the organization participates in a Patient Safety Organization (PSO) [52]. While information submitted to a PSO becomes Patient Safety Work Product protected from disclosure to plaintiff's lawyers, the submitted information may not be used in peer disciplinary proceedings.

In addition, Joint Commission-accredited programs must comply with leadership standards that require, 1) The hospital/organization has a code of conduct that defines acceptable and disruptive and inappropriate behaviors; and 2) Leaders create and implement a process for managing disruptive (non-teamwork) and inappropriate behaviors (behaviors that undermine a culture of safety) [53,54]. Such behaviors may be aggressive (e.g.: belittling Dr. SF for asking reasonable questions), passive aggressive (e.g., changing the operative plan without notifying the OR team or writing a note) or passive (e.g., not responding to the cardiologist's pages, bypassing fully informed consent, and avoiding discussion/disclosure of outcomes with the parents) [36,55].

Justice means much more, though, than the "due process" prescribed by medical staff bylaws or employee handbooks. Procedural rights are important, and scrupulous attention to formalities often insulates professional decision-making (peer review) from substantive judicial scrutiny. But attention merely to formalities is insufficient: addressing unprofessional behavior requires a commitment to justice not only for the individual whose performance appears to fall short, but also for team members whose work was disrupted, other employees and associates who expect fair and equitable treatment, and families who have a reasonable expectation of first having fully informed consent, then learning what is happening with their child [4,40,41].

In Dr. VES's case – and any case involving an apparent adverse outcome, near miss, or failure to provide reasonable care, informed consent, or disclosure of outcomes – this means having institutional representatives whose duty is to gather as much information as quickly as possible from participants, documents and other data. Doing this in a confidential context protected from discovery is essential for at least three reasons:

1. Organizations need structures to improve quality, safety and performance independent of individual personalities; appearance of biased single party assessment and decision making should be avoided,
2. Confidentiality maximizes the chance of finding out what "really" happened from team members who may be distraught, defensive, or fearful of reprisal, and
3. Given litigation-related fears of both families and sanctioned colleagues, invoking available state or federal legal protections from discovery by plaintiff's lawyers can be powerful tools for promoting (vs. inhibiting) candor. Protection for information gathering via event analysis (which may include Root Causes Analysis (RCA), Morbidity, Mortality & Improvement Conferences, Quality or Risk Management reviews) is therefore essential if the organization is to promote its safety culture by fostering its "learning culture" [4,19–30,42,43,56,57].

Using the outcomes of RCAs can result in a fair, unbiased and unemotional way to improve both practitioner behavior and patient care systems is an essential expression of the justice concept. To ignore Dr. VES's alleged behavior, if true, would be tantamount to condoning it, signaling acceptance of and ultimately promoting such behavior, not only among trainees willing to voice concerns, but also among the wider community of medical center care providers [58,59]. In addition, if others experience sanctions for similar performance or behavior, ignoring any instance will exhibit inconsistency at best and may generate assertions of favoritism ("some are more equal than others").

For professionals, something akin to the Golden Rule applies because one day it may be a current reviewer's or leader's performance under scrutiny. Professionals may not agree on exactly what care should have been provided [60] or what professional action is required in any given situation. As a result, one or more reviewers may object to aspects of the process or decisions and not fully agree with the outcomes. But if the reporting, review, and feedback processes are characterized by fundamental fairness, those involved will have honorably discharged this awesome responsibility of self-regulation.

3.2. Freedom from conflicts of interest (COI)

Once the starting point for providing feedback is established, but the appropriate feedback has not yet been defined, freedom from COI and its appearance should be assessed. COI in academic medical centers may include anything from competition for patients and research grants to clinical and laboratory space to allocation of staff time and level of expertise. COI is generally an issue when an individual or organization is entrusted with some impartiality, but has multiple (potentially competing) interests, one of which could *possibly* corrupt one's motivations. "Motive" provides an easy starting point for litigation over any contentious outcome. Leadership's actions are most likely to achieve the "right" outcome when motivated by clear intents to improve quality, safety and professionalism. Therefore, COIs should be identified and voluntarily addressed. Several circumstances involving real or perceived COIs may "disqualify" a leader or peer from participating in data gathering during the assessment phase (but leaders or peers may be interviewed by assessors without COIs if the leaders or peers were active participants in the care under review) and interventions, if required, related to performance issues.

3.3. Reasonable certainty

The third guiding principle is reasonable certainty. Event-related data must be sufficiently reliable for deciding whether and how to act. If the data from primary sources are sufficient they permit knowledgeable, professional dealings with a colleague. Insufficient certainty occurs with reliance on secondary or "hearsay" sources, and sets the stage for the colleague to become unhappy, perhaps irreparably. The colleague may well dispute or deny the message being shared, blame poor outcomes on unnamed "others" or "the system," and/or reject personal responsibility for making changes. Of course, these reactions may occur in the face of overwhelming evidence, so leaders may not use them as excuses for inaction when certainty is less than 100%. "Statistical significance" ($p<.01$) is too high a standard and "more likely than not" (51%) too low. The goal is to marshal properly documented and sufficiently convincing evidence that unbiased professionals conclude intervention is warranted. This means something akin to a "bulletin board test," whereby unbiased professionals passing a bulletin board on which the evidence was posted would draw the same or very similar conclusions.

So, does SF's (the fellow's) hallway tale, by itself, supply enough information to act? Absolutely not. Face-to-face and skillfully conducted interviews must occur, and interviewers should have training. The process begins with learning answers to questions about the case, such as: was there a cath conference? If so, who attended, what lesion was described, and of those participating in the patient's care, who reviewed it? Was there a discussion of surgical approaches, a consensus, perhaps a note? Who talked to the family, and was some form of informed (or "informal") consent obtained? Or said another way, was

there a plan, and if so, who knew it and should have known it? How did Dr. VES address the PICU attending, and did Dr. VES abandon the family? What other existing data should be considered?

Of course, Dr. VES should be asked to describe the case and respond to questions in a confidential, professional and respectful setting. Remember, healthcare professionals' responses to unanticipated outcomes range from denial to admitting a real or imagined error. Many, no matter what their role, will feel guilty for having failed to achieve the desired outcome. Sensitivity and respectfulness in information gathering are skills likely to produce the most reliable conclusions. Skillful questioners are also aware of each observer's point of view based on (or biased by) medical discipline, training, past interactions with care team members, and relationship with the patient's family.

Careful data gathering improves the probability that what happened can be known with reasonable certainty. Some participants may be reluctant to participate in the process out of fear of workplace retribution and/or later litigation (a not uncommon concern). Thoughtful leaders turn over responsibilities for data gathering to the institution's protected review process in order to promote impartiality and maximize the protection of quality assessments from disclosure in lawsuits.

Reasonable certainty also involves consideration of other information sources. Are there "records" outside the traditional medical record? For example, some professionals keep shadow files; the departmental based cath conference notes may be separate from the chart; the cath lab's electronic record system may not connect to the Electronic Medical Record (EMR); the chief of staff's office has a practitioner file; and/or residents and fellows may employ idiosyncratic short-hand notation systems or use index cards. Other data sources may include assessment of patient/family complaints vs. those of other professionals, staff and trainee complaints, previous risk management activity, quality reviews, and leaders' awareness of previous formal or informal performance-related conversations. The point is that reasonable certainty depends on the universe of data weighing for or against a conclusion that systems or individuals failed in a particular case and whether and how to act [4]. In addition, if the patient or professional files suit despite leadership's best efforts, counsel will usually demand "any and all documents, statements, recordings, images, etc." The organization needs to be ready and able to use these to support the rationale for taking action.

3.4. Short term goal: insight

Helping the professional colleague achieve insight is the first goal. Literally, it means the colleague "sees", comprehends, acknowledges what happened, and appreciates her/his role in the event. Does the professional recognize the existence of non-teamwork-promoting behavior, deviations from clinical or operational policies, errant decision making, communication failure(s), or other issues? Revisiting unanticipated outcomes is difficult, and the attendant soul searching and courage required are compounded when personal performance issues have or may have contributed. No requirement of confession or "falling on the sword" should be tolerated, but the professional can be urged to "reflect on the data" in order to achieve insight into her/his contributions to the event.

Without insight, professionals rarely act to achieve lasting behavior or performance change. Simply put, how might Dr. VES demonstrate new insight, i.e., learned enough from this case that he will more likely perform better in the next? His communications and actions might reveal attempts, though perhaps awkward, to try new ways. In Dr. VES's case, how much better would future patient care be if he articulated the value of good informed consent and orienting the surgical team in advance to the planned operation? A measure of insight would include his asking what questions a family raised during the informed consent discussion, and his request of all directly involved to ask questions, prepare themselves, and actively support and assist in the surgery. Or he would ask them to "stop the line" [61], if necessary, until any concerns were addressed, maximizing the patient's and team's chance of safely achieving the desired outcome. And would he listen to the cardiologist in the PICU? Or does he display the opposite, such as apparent withdrawal, averted eyes, sullen demeanor, or expressions of personal or organizational hopelessness?

3.5. Long term goal: restoration of quality practice and professional conduct

Redemption, restoration or return to the professional fold is the final guiding principle and continuously hoped-for outcome. Seeing a colleague adhere to the organization's core values, which in turn promotes the organization's safety culture [4,37,38,40,41], is the ultimate measure of success. Professionals aim to help other professionals learn from untoward events. If Dr. VES teaches the lessons learned from this case so that others will not mimic his non-teamwork behavior, he has reached the point of professional restoration. If the learning stops with him, he may have gained insight, but he has not fully achieved the hoped-for, long-term goal.

4. A tiered intervention guide to action

Action and interventions should be guided by a fair and equitable process. An Accountability Pyramid to Promote Professional Performance (Fig. 1) [31,50,62] is offered as a tool for stratifying what action may be appropriate given a set of facts and circumstances. Table 1 lists selected considerations for each potential level of intervention. These levels have been described elsewhere [62]. The Pyramid's premise is that most professionals are fundamentally self-correcting after receiving feedback about events and patterns of performance. That is, they are both willing and able to conform to expected performance norms if made aware of departures from expected practices. In fact, most physicians are associated with few if any patient/family or staff complaints because they do indeed perform as expected (the base of the Pyramid in Fig. 1); e.g. they wash their hands, practice evidence based medicine, perform thoughtful informed consent and pre-operative timeouts, complete medical records, treat colleagues with respect, and see their patients after surgery [11,12,62,63].

For single, non-egregious episodes of questionable performance an informal "cup of coffee" conversation generally will suffice. This collegial, informal, usually brief encounter is designed to bring to a colleague's or co-worker's attention a witness or reported event that appeared to be inconsistent with "who we are." The goals are to make the colleague aware the event was noticed and ask the colleague to reflect on what prompted the behavior/performance and how they can avoid it in the future. Almost anyone can share the message because what is communicated is a perception of facts, and so should not be judgmental, diagnostic, or prescriptive. The colleague may accept, reject or offer another perspective, but the "messenger" knows s/he has done the professional thing by providing the feedback and the recipient has heard it, with or without acknowledging its validity. A problem arises, however, when leaders occasionally fail to promote accountability via the kind of early feedback that can prevent the establishment of patterns that influence the hidden curriculum [58,59] and outcomes of care.

5. Now back to the story

Guided by the same principles discussed earlier, you (section chief) had one "Cup of Coffee Conversation" about 18 months ago with Dr. VES about two complaints. One was the OR Scheduler's report that Dr. VES had arrived late on "a couple" of occasions, backing up other procedures and generating some patient complaints about delayed or canceled surgeries. The second conversation was about a patient complaint that Dr. VES had not followed up with the patient or her family following a surgical complication the family felt was not covered during informed consent. As a result of subsequent, similar complaints, about a year ago you had a somewhat stronger "Espresso"

(see Table 1) conversation to let Dr. VES know that attention to schedules, informed consent and post surgical communications is consistent with professionalism, and you expressed confidence he would address these issues. You documented the conversation.

The next level up the Pyramid is an "Awareness Intervention" in which the professional is presented data about what appears to be a pattern of concerning performance, or an especially disturbing breach (as defined by the organization [36]) of performance. Your organization has a peer-review protected "Patient Complaints Monitoring Committee" (PCMC) [62,63]. Patient advocates in the medical center's "Office of Patient Relations" attempt "service recovery" when patients complain about any aspect of their healthcare experience and record patient and family observations in an electronic database [64]. Unsolicited patient complaints are unevenly distributed among surgeons and associated with both complication rates and risk of medical malpractice claims [11,12,65–70]. Your medical center's top 4–5% of physicians associated with patient complaint reports receive a visit from a peer "messenger" who presents and asks the high risk colleague to review and consider their personal data. No diagnoses or prescriptions are offered. The session concludes with the peer messenger asking the high risk colleague to "take time to reflect, and identify and address any identifiable patterns in the complaints, and I'm sure when I return with follow-up data your results will look better." The Department Chairs at your medical center are notified when a PCMC member visits a department physician, but the supporting data are not provided in hopes that an initial approach that is confidential, non-directive, and non-punitive will help promote improvement and self regulation [62].

A call to the Chair of the PCMC confirms that Dr. VES has been associated with "numerous" patient and family complaints about delayed and canceled surgeries, poor informed consent discussions, issues of follow-up care, and rudeness. The Quality Committee will contact the PCMC Chair and Patient Relations as part of its review to learn whether Dr. VES has had a Level 1 Awareness Intervention (Table 1). If so, you suspect the Quality Committee may conclude the overall data warrant a "Level 2 Guided Intervention" (Table 1) by you. (You will later learn that Dr. VES was your section's only member to have had a "Level 1 Awareness" Intervention by the PCMC). Physicians subject to Level 2 interventions have been unwilling or unable to self-correct, so have been required to participate in coaching, mentoring, evaluations (physical/mental health, behavioral or technical) or to enroll in courses designed to correct practice management and/or performance issues. Failure to comply with the guided intervention's particular requirements (e.g., at a minimum, Dr. VES might be required to pre-brief OR teams and report changes to surgical plans) typically result in referral for a Level 3 "disciplinary" intervention in accordance with institutional bylaws, rules, regulations and/or human resources policies.

6. Tips for leadership actions

In addition to having a defined, principle-guided process leading to tiered interventions (Fig. 1) with matched conversations [4,62,63,71–74], we offer tips for leadership action in cases such as Dr. VES's. If followed, these practical suggestions can promote professionalism and professional accountability, maximize process reliability, and increase the probability of achieving the goal of professional remediation while minimizing the chance of litigation.

1. You must know and use your sources of authority (contract/bylaws/handbook, etc.) as guides. For example, a faculty manual may address expectations for the quality of educational interactions with trainees. Employment contracts may describe professional obligations, and bylaws may prescribe disciplinary processes to be followed. Hospital privileging may direct handovers, informed consent, disclosure and adverse event reporting.
2. Review the data and records gathered by the institutional assessment process. Listen carefully to others' opinions and raise questions that help you weigh whether the record is compelling. After all, Dr. SF's report might have been designed to put the focus on Dr. VES to cover her own failures to review the medical record and obtain informed consent, and the PICU attending might be involved in a general dispute over who covers PICU patients. Reviewers should maintain a healthy skepticism during the search for truth.
3. Take action grounded first and foremost in quality and patient safety. After all, if litigation ensues, judges and jurors may appreciate that what you are doing is important if they or their loved ones become the next patient. Also ground actions in employment or organizational care-related policies or contract terms, and in compliance with statutes or other medical–legal guidelines. Your status as a senior surgeon, leader with title and reputation as an honest broker are helpful, but these are ultimately unimportant if your actions are inconsistent with the organization's governing policies and procedures or the law.
4. Once you have compelling data ("reasonable certainty") and have chosen the best pathway(s) for action, decide on your desired outcome and stick to it. Does Dr. VES simply need once again to be made aware that his behavior and performance are concerning and cannot be repeated, or do the data support the immediate need for additional training, mentoring, practice management review (being too busy), rehabilitation of some kind, or temporary suspension of surgical privileges? Or are the circumstances so egregious they warrant termination of employment?
5. When data support interventions, leaders must display courage and resolve to see the matter through to conclusion. In other words, don't initiate awareness interventions unless you are prepared to follow through in ways consistent with follow-up data. That is, look for progress, but be prepared to go to the next level up, and be willing to proceed to termination, if required to make it stick. Failing to act in the first place sends one culture-impacting message. Initiating an action, but backing away before the action is completed sends another. The success of conveying a strong, clear message to Dr. VES and to others depends on everyone's willingness to complete tips 1–4 in advance of action.

Table 1
General guidelines for interventions.[a]

Type of intervention	Who does the intervention?	Document the intervention?	How many interventions before escalating to next level?	Data provided?	Where held?
Level 3: Disciplinary	Senior leader with HR/Legal	Yes, with action plan for remediation	Follow organizational policies/procedures	Yes	Authority figure or legal affairs office
Level 2: Guided intervention by authority figure	Senior leader	Yes, with action plan for remediation	1	Yes	Authority figure's office
Level 1: Awareness	Person with right to data and right to conduct the intervention	Yes, with follow up	1–2 depending on circumstances	Yes	Either person's office or neutral site
Espresso conversation	Boss, "1 up" report	Varies depending on person and situation	1 or 2	Maybe	Boss's office
Informal cup of coffee conversation	Anyone	No	2–3 depending on circumstances	No	On/near site of event

[a] Circumstances vary, each institution must determine its own guidelines; reducing nuances to a chart creates the appearance of excess certainty.

6. Be direct. Leaders cannot delegate conversations at the Pyramid's two top levels. Sit eyeball to eyeball in a face-to-face meeting to review the data, permit a response to learn another side to the story, and present the accountability plan. Do not act through proxies, subordinates, memoranda or emails.
7. Process regularity provides employment litigation protection. Ad hoc behavior does not. In most jurisdictions, courts do not attempt, nor do they typically feel qualified, to assess individual physician behavioral and technical performance. Rather, courts focus on "due process". The court's inquiry generally revolves around the documents (i.e., contracts, bylaws, handbooks, policies) that define the relationship between the institution or group and the physician. Judges are qualified to compare conduct to defined legal rights, hence this article's emphasis on knowing the sources of authority, accumulating compelling data and confirming that actions are motivated by legitimate concerns, not personal animus [75–78]. Promoting professional accountability is an awesome responsibility requiring the same sense of purpose, primary source verification and deliberative process as if one's own case were being reviewed. If the CEO, the organization, and its Board of Directors have not yet formally committed to processes for learning about, analyzing and responding to events that jeopardize safety, quality and professionalism, doing so before the next event is a worthy goal [79–81].

We suggest that the peer review processes and decisions guided by the five principles and tiered intervention process above, and informed by these tips are likely to work and pass judicial muster [62].

7. Case epilog

We return for the last time to the case example to describe the RCA's findings and the leaders' interactions with Dr. VES and other staff involved in the surgery.

The RCA was led by the hospital Quality Committee and involved Drs. VES and SF, the anesthesia team, and the OR staff. The results reveal the following: Consent forms and PICU coverage were assessed, but the only clearly identified system problem involved communicating cath conference notes. A Quality Committee member agreed to resolve that issue and report back. The results supported the facts in the reports by the PICU attending and Dr. SF. A nurse and an anesthesia resident reported being so intimidated by Dr. VES's previous tongue lashings that no pre-procedure time out was called. The nurse said, "I just didn't speak up." Dr. VES's last-minute arrival, intimidating behavior [82], and alteration of the planned procedure without communicating the changes to others were concerning. In addition, the event analysis raised questions about Dr. SF's informed consent-related behavior and unwillingness to "stop the line." Others' failures to call a time out and speak up were also identified [51,83,84].

An independent review of Dr. VES's surgical technique was conducted by both an internal and an external surgical expert at the request of Risk Management and the Quality Committee. Both concluded that the choice of procedure, the degree of PA band constriction and size of the shunt were matters of professional judgment and were not clearly erroneous. But both reviewers also said they could not testify for the defense in a malpractice suit because the inaccurate consent form, lack of documentation about the changed surgical plan, failure to conduct a time-out, absence of intraoperative monitoring and Dr. VES's unresponsiveness to the cardiologists' pages, while not causing the clinical outcome, could make the case indefensible at a common sense, jury level of reasoning.

You and other leaders in the Surgery and Anesthesia departments decide that this case identified several important lessons. An MM&I conference about the case is well-attended by many physicians and nurses, OR staff, administrators, residents, and risk managers. The case is sobering for all.

8. Human accountability and feedback

The Chair of Anesthesiology, the Director of Nursing, the Fellowship Program Director and Associate Dean for Graduate Medical Education will meet with their people. Given the accumulation of patient and staff complaints and the current event analysis, the Quality Committee recommended Dr. VES receive a Level 2 "guided" intervention. You and your Department Chair agree that you will meet with Dr. VES, reserving the Chair for a disciplinary intervention should one subsequently be required. For each individual the responsible leader is asked to make two determinations. The first is to assess the individual's accountability under Reason's Unsafe Acts Algorithm [2,3], i.e., to consider whether evidence exists that harm was intended, the individual was impaired, policies were violated, and/or unreasonable behavior was exhibited (and, if so, whether that behavior continued a pattern). The second leadership determination involves the appropriate administrative response. All – Drs. VES, SF, the anesthesia team and the nurses – are valued, and feedback is to be offered in a way that supports a safety culture and promotes their professional accountability.

9. Meeting with Dr. VES

As Dr. VES's section chief, you prepare to speak with him about his surgical decision-making, dismissive behavior toward anesthesia colleagues and informed consent, and his communications with the Fellow and the nurses. You have no reason to believe he intended harm, and you have no evidence of chemical impairment. On the other hand, Dr. VES's ability to communicate well with others may be impaired. You believe his behavior prior to and in the OR unreasonably increased risk; your experience is that the vast majority of your division's physicians do not behave like this in high-pressure situations. You have no way of knowing whether Dr. VES recognizes his behavior may have contributed to the patient's outcome.

Dr. VES is productive, but his performance in this case cannot go unaddressed. In addition, your previous documented conversations with him plus the PCMC data, now made fully available to you, clearly demonstrate that Dr. VES has repeatedly behaved in non-teamwork-promoting ways described previously. You find it concerning that Dr. VES failed to self-correct despite opportunities described by previous feedback. As permitted by medical staff bylaws and in coordination with the Physician Wellness Program, you will require Dr. VES to undergo a comprehensive mental health evaluation and, if indicated, a defined treatment plan. Failure to comply would subject Dr. VES to loss of privileges.

A week after the meeting with Dr. VES you learn he went to his friend, the CEO, to complain about "…unfair treatment, and I refuse to have a shrink evaluate me over something so ridiculous…". The CEO was initially taken aback, but glad to have been taught some standard talking points for responding, even at the risk of offending Dr. VES: "First, I want to thank you for all you do here. More to your point, I am aware of the case and that a review was conducted. I was not aware of the required assessment until you just now told me. But I know our review process and I trust it. It is consistently applied to everyone when concerning cases are reported. And, knowing you to be the dedicated professional you are, I expect you will comply and go through the assessment process. As a matter of courtesy and respect for your privacy, I won't repeat what you told me to anyone. Now, I know you are very busy and want to get back to your patients. I hope the rest of your day is good."

10. The meeting with Dr. SF

The Fellow has an otherwise outstanding record. However, she is accountable for knowingly violating the informed consent policy and failing to challenge what was happening in the OR. Using the accountability pyramid (Fig. 1), because this is a "serious" but not a

"most egregious and unlawful" act and she has no pattern of violations, Level 3 disciplinary action is not appropriate. A "cup of coffee" conversation was considered but rejected because of the event's seriousness. Level 2 is indicated for patterns that do not respond to awareness feedback. This is Dr. SF's first event, and no need was seen for drawing up a directed plan. She has routinely obtained good informed consents, so requiring re-education would be pointless.

Although Dr. SF has not had a pattern of unprofessional performance, a Level 1 "awareness" feedback intervention was considered appropriate, allowing an expression of appreciation for her value and for reporting the event, a request that she reflect on all that occurred, and confidence she will make early reports of concerning events throughout her career. Experience with Dr. SF suggests she will respond professionally. The option to proceed to a Level 2 "guided" intervention is retained should she show no evidence of insight.

Recognizing errors' potential for emotional impacts [85–87], Dr. SF is asked and responds she is doing okay. Nevertheless, she is given information about the Employee Assistance Program (EAP) services [88]; the awareness feedback did not need to be deferred. Feedback included the Quality Committee's findings about the root causes of the event, including her failure to perform an appropriate informed consent and deferring to an attending surgeon whose performance was not consistent with a safety culture. She is told the institution is addressing each finding, including making changes to the systems to have cath conference notes available as surgeons prep for procedures such as the one in this case.

Dr. SF immediately responds that she has reflected on the events. She is particularly concerned that she permitted herself to be intimidated and abandoned a critical communication process designed to protect patient rights. She acknowledges she failed to speak up in the OR to the detriment of the patient and family. She has reviewed the online informed consent training module and expresses interest in coaching in assertive communication skills.

Dr. SF's thoughtfulness and stated plan are affirmed. She is thanked for her valued contributions to the team, asked whether she has questions, and told there's no need to meet again about the matter unless she wishes to.

11. Summary and conclusions

This article offered five principles and seven tips to guide wise leaders' efforts to promote professionalism and professional accountability in the interests of patients, colleagues, and other healthcare team members. Expectations of pediatric cardiac surgeons and cardiologists grow as the specialty evolves. Surgeons can be natural leaders of this process because their skills, roles and experience are crucial in the preoperative, intra-operative and postoperative care of patients and their families [89]. Equally crucial is each surgeon's commitment to professionalism in support of the collaborative aspects of this microsystem, both inside and outside the operating room. Any non-teamwork-promoting behavior simply erodes trust and communication, thus impedes complex multidisciplinary team care. Professional performance and promoting professional accountability are therefore keys to highly reliable pediatric cardiac surgery teams.

An "Accountability Pyramid to Promote Professional Performance" was offered as a tool for stratifying interventions for dealing with non-teamwork-promoting performance. We conclude now by challenging readers to consider how to increase the reliability of their processes, maximize colleagues' opportunities for receiving performance- and professionalism-related feedback, and reduce concomitant malpractice and employment-related litigation risks.

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References

[1] Reason JT. Managing the risks of organizational accidents. Aldershot, UK: Ashgate Publishing; 1997.
[2] Reason J. Human error: models and management. BMJ 2000;320:768–70.
[3] Reason JT. The human contribution. Burlington, VT: Ashgate Publishing Company; 2008.
[4] Hickson GB, Moore IN, Pichert JW, Benegas Jr M. Balancing systems and individual accountability in a safety culture. In: Berman S, editor. From Front Office to Front Line. 2nd ed. Oakbrook Terrace, IL: Joint Commission Resources; 2012. p. 1–36.
[5] Vanderbilt University Medical Center.. Professional conduct, OP 30 -10.13. VUMC Policy Manual. Nashville, TN: The Medical Center; 2010.
[6] Rosenstein A, O'Daniel M. A survey of the impact of disruptive behaviors and communication defects on patient safety. Jt Comm J Qual Patient Saf 2008;34:464–71.
[7] Mazzocco K, Petitti DB, Fong KT, et al. Surgical team behaviors and patient outcomes. Am J Surg 2009;197:678–85.
[8] Saxton R, Hines T, Enriquez M. The negative impact of nurse–physician disruptive behavior on patient safety: a review of the literature. J Patient Saf 2009;5:180–3.
[9] Johnson C. Bad blood: doctor–nurse behavior problems impact patient care. Physician Exec 2009;35:6–11.
[10] Rosenstein A, O'Daniel M. Disruptive behavior and clinical outcomes: perceptions of nurses and physicians. Am J Nurs 2005;105:54–64.
[11] Hickson GB, Federspiel CF, Pichert JW, Miller CS, Gauld-Jaeger J, Bost P. Patient complaints and malpractice risk. JAMA 2002;287:2951–7.
[12] Hickson GB, Federspiel CF, Blackford J, et al. Patient complaints and malpractice risk in a regional healthcare center. South Med J 2007;100:791–6.
[13] Rosenstein A. Original research: nurse–physician relationships: impact on nurse satisfaction and retention. Am J Nurs 2002;102:26–34.
[14] Rosenstein A, O'Daniel M. Impact and implications of disruptive behavior in the perioperative arena. J Am Coll Surg 2006;203:96–105.
[15] Weber DO. Poll results: doctors' disruptive behavior disturbs physician leaders. Physician Exec 2004;30:6–14.
[16] Pfifferling JH. Physicians' disruptive behavior: consequences for medical quality and safety. Am J Med Qual 2008;23:165–7.
[17] Dull D, Fox L. Perception of intimidation in a perioperative setting. Am J Med Qual 2010;25:87–94.
[18] Pejic AR. Verbal abuse: a problem for pediatric nurses. Pediatr Nurs 2005;31:271–9.
[19] Kaplan HS, Fastman BR. Organization of event reporting data for sense making and system improvement. Qual Saf Health Care 2003;1(Suppl 2):ii68–72.
[20] ECRI Institute.. Internal event reporting: an essential tool for risk management and patient safety; May 19–20, 2010. http://bphc.hrsa.gov/ftca/riskmanagement/-webinars/eventreporting.pdf. Accessed July 15, 2011.
[21] Wu AW, Lipshutz AKM, Pronovost PJ. Effectiveness and efficiency of root cause analysis in medicine. JAMA 2008;299:685–7.
[22] Bagian JP, Gosbee J, Lee CZ, Williams L, McKnight SD, Mannos DM. The Veterans Affairs root cause analysis systems in action. Jt Comm J Qual Improv 2002;28:531–45.
[23] Percarpio KB, Watts BV, Weeks WB. The effectiveness of root cause analysis: what does the literature tell us? Jt Comm J Qual Improv 2008;34:391–8.
[24] Williams PM. Techniques for root cause analysis. Proc (Bayl Univ Med Cent) 2001;14:154–7.
[25] University HealthSystem Consortium. Sentinel event management and prevention: best practice recommendations. Oak Brook, IL: UHC; 2007.
[26] U.S. Department of Veterans Affairs. National Center for Patient Safety: Root Cause Analysis (RCA). http://www.va.gov/NCPS/rca.html. Accessed July 22, 2011.
[27] Deis JN, Smith KM, Warren MD. Transforming the morbidity and mortality conference into an instrument for systemwide improvement. In: Henriksen K, Battles JB, Keyes MA, Grady ML, editors. Advances in Patient Safety: New Directions and Alternative Approaches. Culture and Redesign).Rockville, MD: U. S. Agency for Healthcare Research and Quality; 2008.
[28] Szekendi MK, Barnard C, Creamer J, Noskin GA. Using patient safety morbidity and mortality conferences to promote transparency and a culture of safety. Jt Comm J Qual Patient Saf 2010;36:3–9.
[29] Kauffmann R, Landman MP, Shelton J, et al. The use of a multi-disciplinary morbidity and mortality conference to incorporate ACGME general competencies. J Surg Educ 2011;68:303–8.
[30] Prince JM, Vallabhaneni R, Zenati MS. Increased interactive format for morbidity & mortality conference improves educational value and enhances confidence. J Surg Educ 2007;64:266–72.
[31] Pichert JW, Johns JA, Hickson GB. Professionalism in support of pediatric cardio-thoracic surgery: A case of a bright young surgeon. Prog Pediatr Cardio 2011;32(2):89–96.
[32] Hickson GB, Entman SS. Physicians' influence and the malpractice problem. Obstet Gynecol 2010;115:682–6.
[33] Classen DC, Resar R, Griffin F, et al. 'Global trigger tool' shows that adverse events in hospitals may be ten times greater than previously measured. Health Aff (Millwood) 2011;30:581–9.
[34] Frankel A, Grillo SP, Baker EG, et al. Patient Safety Leadership WalkRounds at Partners HealthCare: learning from implementation. Jt Comm J Qual Saf 2005;31:423–37.
[35] Pronovost PJ, Weast B, Bishop K, et al. Senior Executive Adopt-a-Work Unit: a model for safety improvement. Jt Comm J Qual Saf 2004;30:59–68.
[36] The Joint Commission. Sentinel Event Alert: behaviors that undermine a culture of safety. 2008;40:1–3. http://www.jointcommission.org/assets/1/18/SEA_40.PDF. Accessed July 21, 2011.
[37] Chassin MR, Loeb JM. The ongoing quality improvement journey: next stop, high reliability. Health Aff (Millwood) 2011;30:559–68.

[38] Keroack MA, Youngberg BJ, Cerese JL. Organizational factors associated with high performance in quality and safety in academic medical centers. Acad Med 2007;82:1178–86.
[39] Chassin MR. Is health care ready for six sigma quality? Milbank Q 1998;76: 565–91.
[40] Marx D. Patient safety and the "just culture": a primer for health care executives. New York, NY: Columbia University, 2001. http://psnet.ahrq.gov/resource.aspx?resourceID=1582. Accessed July 21, 2011.
[41] Frankel AS, Leonard MW, Denham CR. Fair and just culture, team behavior, and leadership engagement: the tools to achieve high reliability. Health Serve Res 2006;41(4 Pt 2):1690–709.
[42] Sexton JB, Thomas EJ, Helmreich RL. Error, stress, and teamwork in medicine and aviation: cross sectional surveys. BMJ 2000;320:745–9.
[43] Wilson RM, Harrison BT, Gibberd RW, Hamilton JD. An analysis of the causes of adverse events from the quality in Australian health care study. Med J Aust 1999;170:411–5.
[44] Leape LL, Berwick DM. Five years after to err is human: what have we learned? JAMA 2005;293:2384–90.
[45] Landrigan CP, Parry GJ, Bones CB, Hackbarth AD, Goldmann DA, Sharek PJ. Temporal trends in rates of patient harm resulting from medical care. N Eng J Med 2010;363: 2124–34.
[46] Marx DA, Slonim AD. Assessing patient safety risk before the injury occurs: an introduction to sociotechnical probabilistic risk modelling in health care. Qual Saf Health Care 2003;12(Suppl 2):ii33–8.
[47] Pronovost P. Learning accountability for patient outcomes. JAMA 2010;304:204–5.
[48] Shanafelt TD, Balch CM, Bechamps GJ, et al. Burnout and career satisfaction among American surgeons. Ann Surg 2009;250:463–71.
[49] Rosenstein AH, Mudge-Riley M. The impact of stress and burnout on physician satisfaction and behaviors. Physician Exec 2010;36:16–8 20, 22–3.
[50] Hickson GB, Pichert JW, Webb LE, Gabbe SG. A complementary approach to promoting professionalism: identifying, measuring, and addressing unprofessional behaviors. Acad Med 2007;82:1040–8.
[51] DesRoches C, Rao S, Freeman J, et al. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. JAMA 2010;304:187–93.
[52] Patient Safety and Quality Improvement Act of 2005, 42 CFR Part 3.
[53] The Joint Commission.. Leadership Standard LD. 03.01.01. In: TJC, editor. Comprehensive accreditation manual for hospitals: the official handbook. Oakbrook Terrace, IL: Joint Commission Resources; 2010.
[54] Joint Commission International. Management of communication and information standard MCI.5. In: TJCI, editor. Accreditation standards for hospitals. 4th ed. Oakbrook Terrace, IL: Joint Commission International; 2010. (e-book).
[55] Samenow CP, Swiggart W, Spickard Jr A. A CME course aimed at addressing disruptive physician behavior. Physician Exec 2008;34:32–40.
[56] Kachalia A, Kaufman SR, Boothman R, et al. Liability claims and costs before and after implementation of a medical error disclosure program. Ann Intern Med 2010;153:213–21.
[57] Skaggs L. Hospital risk management programs in the age of health care reform. Kan J Law & Pub Pol 1995;4:89–108.
[58] Gaufberg EH, Batalden M, Sands R, Bell SK. The hidden curriculum: what can we learn from third-year medical student narrative reflections? Acad Med 2010;85:1709–16.
[59] Hafler JP, Ownby AR, Thompson BM, et al. Decoding the learning environment of medical education: a hidden curriculum perspective for faculty development. Acad Med 2011;86:440–4.
[60] Hickson GB, Clayton EW, Entman SS, et al. Obstetricians' prior malpractice experience and patients' satisfaction with care. JAMA 1994;272:1583–7.
[61] Liker JK. The Toyota way: 14 management principles from the world's greatest manufacturer. New York City: McGraw Hill; 2004.
[62] Hickson GB, Pichert JW. Identifying and addressing physicians at high risk for medical malpractice claims. In: Youngberg B, ed. Patient safety handbook. Sudbury, MA; Jones & Bartlett Learning. In press.
[63] Moore IN, Pichert JW, Hickson GB, et al. Rethinking peer review: detecting and addressing medical malpractice claims risk. Vanderbilt Law Review 2006;59: 1175–206.
[64] Hayden AC, Pichert JW, Fawcett J, Moore IN, Hickson GB. Best practices for basic and advanced skills in health care service recovery: a case study of a readmitted patient. Jt Comm J Qual Pat Saf 2010;36:310–8.
[65] Stelfox HT, Gandhi TK, Orav EJ, Gustafson ML. The relation of patient satisfaction with complaints against physicians and malpractice lawsuits. Am J Med 2005;118:1126–33.
[66] Fullam F, Garman AN, Johnson TJ, Hedberg EC. The use of patient satisfaction surveys and alternative coding procedures to predict malpractice risk. Med Care 2009;47:553–9.
[67] Levtzion-Korach O, Frankel A, Alcalai H, et al. Integrating incident data from five reporting systems to assess patient safety: making sense of the elephant. Jt Comm J Qual Pt Saf 2010;36:402–10.
[68] Stimson CJ, Pichert JW, Moore IN, et al. Medical malpractice claims risk in urology: an empirical analysis of patient complaint data. J Urol 2010;183:1971–6.
[69] Mukherjee K, Pichert JW, Cornett MB, et al. All trauma surgeons are not created equal: asymmetric distribution of malpractice claims risk. J Trauma 2010;69: 549–54.
[70] Murff HJ, France DJ, Blackford J, et al. Relationship between patient complaints and surgical complications. Qual Saf Health Care 2006;15:13–6.
[71] Leape L, Fromson J. Problem doctors: is there a system level solution? Ann Intern Med 2006;144:107–15.
[72] Rosenstein AH. Early intervention can help prevent disruptive behavior. Physician Exec 2009;35:14–5.
[73] DuPree E, Anderson R, McEvoy MD, Brodman M. Professionalism: a necessary ingredient in a culture of safety. Jt Comm J Qual Patient Saf 2011;37:447–55.
[74] Lubnau TE, Bailey DB. Dealing with the disruptive physician. Wyo L Rev 2008;8: 567–86.
[75] Health Care Quality Improvement Act of 1986 (HCQIA), 42 U.S.C. 11101.
[76] *Bryan v Holmes Regional Medical Center*, 33 F3d 1318, 1335, 6393 (11th Cir. 1994).
[77] Goldberg v Rush Medical Center, 371Ill. App. 3d 597 (1st Dist. 2007).
[78] *Guier v Teton County Hospital District*, 248 P3d 623 (Wyo. 2011).
[79] Morath JM, Turnbull JE. To do no harm: ensuring patient safety in healthcare organizations. San Francisco: Jossey-Bass; 2005.
[80] Joint Commission Resources.. Getting the board on board: what your board needs to know about quality and patient safety. 2nd ed. Oakbrook Terrace, IL: Joint Commission Resources; 2011.
[81] Conway J. Getting boards on board: engaging governing boards in quality and safety. Jt Comm J Qual Pat Saf 2008;34:214–20.
[82] Cohen M, Smetzer J. Intimidation: practitioners speak up about this unresolved problem. Jt Comm J Qual Patient Saf 2005;31:594–9.
[83] Edmondson A. Psychological safety and learning behavior in work teams. Administrative Sci Q 1999;44:350–83.
[84] Nance J. Aviation example of copilot not speaking up. Why hospitals should fly: the ultimate flight plan to patient safety and quality care. Bozeman, MT: Second River Health Care Press; 2009.
[85] Roesler R, Ward D, Short M. Supporting staff recovery and reintegration after a critical incident resulting in infant death. Adv Neonatal Care 2009;9:163–71.
[86] Waterman AD, Garbutt J, Hazel E, et al. The emotional impact of medical errors on practicing physicians in the United States and Canada. Jt Comm J Qual Patient Saf 2007;33:467–76.
[87] Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. Qual Saf Health Care 2009;18:325–30.
[88] Selvik R, Stephenson D, Plaza C, Sugden B. EAP impact on work, relationships, and health outcomes. J Emp Asst Res Rep 2004 2nd Qtr, 18-11.
[89] Winlaw DS, Large MM, Jacobs JB, Barach PR. Leadership, surgeon well-being and non-technical competencies of pediatric cardiac surgery. Progress in Pediatric Cardiology 2011;32:129–33.