Measuring and managing the economic impact of disruptive behaviors in the hospital

By Alan H. Rosenstein, MD, MBA

Disruptive behaviors have been shown to have a significant negative impact on staff relationships, team collaboration, communication flow, and patient outcomes of care. They can be a major factor in contributing to the occurrence of adverse events that compromise quality care and patient safety and can put the patient and organization at increased risk. Whereas organizations generally are not reticent to make system enhancements designed to improve patient safety, they are more reluctant to address human factor issues such as disruptive behaviors for a variety of reasons. This article presents a 10-step process for addressing both the economic and quality impact of disruptive behaviors in an attempt to stimulate a call to action.

INTRODUCTION

Healthcare providers face increasing pressures to demonstrate their ability to provide appropriate, efficient, effective, high-quality care in a safe medical environment. In order to achieve these objectives, they are changing structures and policies, revising treatment protocols, and adding significant system and technology enhancements to accomplish these goals. When all goes well, the system does its job. When it does not, serious consequences can result.

Many of these failures are not related to system inefficiency but to human factor issues that affect communication, collaboration, information transfer, process flow and efficiency, compliance, and task accountability. A study published in *Quality and Safety in Healthcare* reported that human factor issues were responsible for 61% of recorded adverse events.(1) The Joint Commission states that nearly 70% of sentinel events can be traced back to an error in communication.(2) Addressing disruptive behaviors as one of the human factor issues affecting healthcare delivery should be a key component of all risk management programs.

Addressing disruptive behaviors

Disruptive behaviors have been shown to have a significant negative impact on staff satisfaction and retention, process efficiency, quality of care, patient safety,

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and the occurrence of adverse events.(3–7) Addressing disruptive behaviors is a difficult issue. Organizational barriers include not having the right process, structure, skill set, or leadership in place to address behavioral rather than clinical issues and a corporate unwillingness to commit to follow-up actions needed to ensure compliance with organizational standards. Economic barriers related to resource capacity include the time and cost involved in committing appropriate resources to the project. This article develops a financial model for assessing the organization risks of not addressing disruptive behaviors by looking at direct and indirect costs associated with disruptive events.

Ignoring the problem can be costly

Disruptive behavior is not a new phenomenon in the medical arena, yet many organizations have been reluctant to address it. Underlying issues related to hierarchy, boundaries, physician autonomy, conflicts of interest, and the fear of antagonizing a physician often have led to a stance of tolerance or avoidance rather than direct interaction.

The past several years have brought important changes. First was the concern about the impact of disruptive behaviors on staff satisfaction and retention, the effect of which was heightened by the growing shortage of nurses and other healthcare personnel. Then in 2009, the Joint Commission issued its leadership standard requiring hospitals to have a disruptive behavior policy in place as part of the hospital accreditation process. Hospitals need to be accredited in order to bill for inpatient Medicare services. The risks of not addressing disruptive behaviors now far exceed any value gained from passive avoidance or looking the other way.

Disruptive behavior: A brief overview

Disruptive behavior is defined here as any inappropriate behavior, confrontation, or conflict ranging from verbal abuse (yelling, intimidation, condescending, berating, disrespectful, abusive behaviors) to physical or sexual harassment that can negatively affect work relationships, communication efficiency, information transfer, and the process and outcomes of care.

Disruptive events tend to occur more frequently in certain medical specialties (general surgery, cardiovascular surgery, cardiology, neurosurgery, orthopedics, anesthesia, OB/GYN) and in the more stressful high-intensity areas (perioperative, intensive care, delivery, emergency services), which pose the highest potential for significant risk.(8–16) The data have shown that usually only 3% to 5% of the medical staff is truly disruptive, but these individuals can have a profound effect on the entire organization.(17–18)

My research first focused on the impact of disruptive behaviors on nurse satisfaction and retention.(19) The survey results revealed that more than 80% of the respondents who participated in the survey had witnessed disruptive behavior in physicians. More than one-third of the survey respondents knew of a nurse who had left the hospital because of a disruptive physician. The average number of nurses who left an organization under these circumstances was 2.3. The direct costs of recruiting a new nurse can range between $60,000 and $100,000. Additional indirect costs include those of orientation, training, mentoring, and the associated time of getting a newly hired nurse up to speed.

The second phase of research focused on the frequency of physician, nurse, and other staff disruptive behaviors and looked at their impact on behavioral factors that affected healthcare delivery. More than 90% of the respondents stated that as a result of a disruptive incident, they were stressed or intimidated, or lost their ability to focus and concentrate, which led to significant gaps in communication, collaboration, and information transfer.(20–22, 23, 24) All these factors can significantly affect productivity and efficiency. More than 70% of the respondents saw a direct linkage between disruptive behaviors and compromises in patient quality and the occurrence of medical errors, more than 50% felt there were compromises in patient safety, and 25% felt there was a linkage to patient mortality. Fifteen percent of the respondents stated that they were aware of a specific adverse event that could be attributed to a disruptive episode. Eighty percent of the respondents felt that these events could have been prevented.

Adverse events and costly consequences

Adverse events are unexpected negative consequences that occur as a result of a healthcare intervention. Most adverse events are preventable. They have a significant emotional and financial impact on patients, staff, and the organization.

Despite significant progress made in improving quality, there is opportunity for improvement. A 2009 report from the Agency for Healthcare Research and Quality called healthcare quality "suboptimal" and stressed the need for continued improvements, particularly in the areas of patient safety.(25) The most recent Health Grades Annual Patient Safety study reported 958,202 patient safety events and 99,000 deaths over a three-year period, with a total of nearly $9 billion in additional healthcare costs. Their conclusion was that "while hospitals have made progress, medical mistakes still occur at an alarming rate."(26)

Similarly, the National Quality Forum reported in its *Safe Practices for Better Healthcare* manual that nearly 15 million instances of medical harm occur annually at a cost of between $17 billion and $29 billion a year in healthcare expenses, lost productivity, lost income, and disability.(27) Another 20% to 30% of additional costs are estimated to accrue in the postdischarge sector.(28)

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The literature provides a number of examples of costs associated with a specific adverse event. One of the most frequent and serious adverse events has to do with medication errors. The cost of an adverse drug event ranges from $2,000 to $5,800 per hospitalization and an increase in length of hospital stay of 2.2 to 4.6 days.(29, 30) An estimated 1.5 million preventable drug events occur each year.(31) One out of 10 patients suffers as a result of a mistake with medication.(32)

Hospital-acquired infections are another major category of adverse events. The costs of a hospital-acquired infection average between $20,000 and $38,500 in additional costs of care.(33) An estimated 1.7 million infections and 99,000 deaths occur each year related to hospital infections.(34)

My colleagues and I conducted a multihospital study looking at the frequency of selected adverse events and their impact on hospital lengths of stay, cost, and patient mortality.(35) The impact model looked at the discharge diagnoses where the adverse events occurred most frequently and then compared the outcomes to those same diagnoses where the adverse event was not present. Analysis was limited to diagnoses where there were at least 10 cases over a one-year period. The average occurrence rate for deep vein thrombosis was 1.2%. The average increase in length of stay comparing similar diagnoses with and without the adverse event was 4.2 days. The average increase in cost comparing similar diagnoses with and without the adverse event was $36,000. The average occurrence rate for pressure ulcers was 2.0%. The average increase in length of stay comparing similar diagnoses with and without the adverse event was 4.1 days. The average increase in cost comparing similar diagnoses with and without the adverse event was $22,000. The average occurrence rate for ventilator-associated pneumonia was 0.7%. The average increase in length of stay comparing similar diagnoses with and without the adverse event was 5.3 days. The average increase in cost comparing similar diagnoses with and without the adverse event was $49,000.

Insurers may refuse additional payments to cover the expense of preventable adverse events, including those following disruptive behaviors.

Given the fact that insurers may refuse additional payments to cover the expense of preventable adverse events, including those following disruptive behaviors, hospitals face significant financial risk.(36)

Financial liability: Direct and indirect cost

In regard to liability, significant direct and indirect costs are associated with malpractice proceedings related to investigation, preparation, litigation, and payment. Many of these events are precipitated by exposures related to poor communication, dissatisfaction, and adverse events.

Several studies have shown a strong correlation among provider communication, patient dissatisfaction, physician incident reports, and the likelihood of being sued. (37–39) A report from RAND showed a strong correlation between the occurrence of adverse events and the number of malpractice suits.(40) An article in the *New England Journal of Medicine* reported that the average cost of a medical error–based claim was $521,560.(41)

On top of the malpractice and the growing "no pay" concerns for the occurrence of preventable adverse events is the growing tendency of imposing fines for organizational mistakes. California fined seven hospitals for harm caused to patients from avoidable mistakes in the delivery of care. The fines ranged from $25,000 to $100,000 per hospital. (42) Since 2007, the state has issued 134 fines to 90 hospitals totaling $4.225 million, of which $2.3 million has already been collected.

Patient satisfaction and hospital reputation

In addition to the direct financial consequences are indirect financial consequences of market share implications affected by patient satisfaction scores and hospital reputation.

For the past several years, Medicare has been posting the results of the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey that was created several years ago to publicly report patients' perspective of hospital care. The HCAHPS results are posted on Hospital Compare in an effort to allow consumers to make fair and objective comparisons among hospitals before selecting a healthcare facility.(43) In the future, these scores will be added to the pay-for-performance initiatives.

Public media and word-of-mouth spread also affect an organization's reputation with the same potential to have an impact on market share. In the 2009 Health Leaders Patient Experience survey, nearly 90% of the top-level healthcare executives who responded said that patient experience was either their top priority (35%) or among their top five priorities in moving forward.(44) Clearly, providers' disruptive behaviors have a negative impact on experiences of their patients.

Communication and administrative compliance

A pivotal concern surrounding disruptive behavior is its impact on communication and process flow. Poor connectivity leads to resistance, confusion, gaps in task

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completion, time delays, wasted efforts, and unnecessary duplication. These results adversely affect operational and clinical efficiency and productivity. A University of Maryland report estimates that U.S. hospitals waste $12 billion annually due to poor communication among healthcare providers; for a typical 500-bed hospital, the cost would be in excess of $4 million.(45)

Disruptive behaviors also affect administrative compliance. In process and utilization efficiency, disruptive physicians may also cause problems with medical records in regard to responsiveness to coding queries and timely chart completion, both of which have a significant impact on hospital revenues and quality rankings. Disruptive physicians are also less likely to comply with case management concerns about plan of care, clinical necessity, care coordination, resource utilization, and discharge planning.

On the quality side, disruptive physicians are often resistant to any outside interventions or externally driven guidelines or protocols for care delivery. **Table 1** provides a summary of the potential financial risks of disruptive behaviors listed in this article.

Recommendation: A 10-step process

Disruptive behavior can have a deleterious effect on healthcare outcomes. Although it is one of many factors that can lead to the occurrence of adverse events, its negative impact on communication flow, information transfer, and attention to task can significantly affect patient care. Beyond disruptive behavior is the opportunity to increase the overall communication efficiency and team collaboration that are so important in today's complex medical environment.

Individuals may not recognize that they are acting in a disruptive manner, and even if they do, they may not be aware of the negative impact it has on staff relationships, task responsibilities, and outcomes of care.

A 10-step process that organizations should consider in taking a proactive approach to addressing disruptive behaviors follows:

1. *Organizational commitment.* An organizational commitment must be secured to address disruptive behaviors. The commitment must be supported by administration and clinical leaders willing to devote resources and necessary action with noncompliant individuals.

2. *Disruptive behavior policy.* There must be a policy that defines appropriate standards of behavior that outlines enforcement, and that policy must be uniformly applied to all healthcare disciplines.

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Table 1: Summary of Financial Risks of Disruptive Behaviors

Issue	Financial Risk
Recruitment and retention	RN: $60,000–$100,000, plus additional opportunity costs
Adverse events ("no pay" for adverse events initiatives)	Medication error: $2,000 to $5,800 per case, plus additional increase loss of service (LOS) of 2.2 to 4.6 days
	Hospital-acquired infection: $20,000 to $38,500
	Deep vein thrombosis: $36,000 plus additional increase of LOS of 4.2 days
	Pressure ulcer: $22,000 plus additional increase of LOS of 4.1 days
	Ventilator-associated pneumonia: $49,000 plus additional increase in LOS of 5.3 days
Malpractice: $521,560 plus additional opportunity costs	
Fines: $25,000 to $100,000	
Patient satisfaction and reputation: Market share implications (unknown amount)	
Compliance issues (unknown amount)	Impact on documentation and coding
	Impact on utilization efficiency (LOS, resource efficiency, discharge planning)
	Impact on quality
	Impact on productivity and efficiency (downtime, waste, delays)
Communication inefficiencies	$4 million (based on a 500-bed hospital)

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3. *Project champion.* A respected clinical champion can help drive the program forward.

4. *Recognition and awareness.* Staff education will raise levels of awareness of downstream consequences from disruptive behaviors as well as establish individual responsibilities and accountability. (When individuals learn of the consequences of their actions, they might be more inclined to make adjustments to modify their behaviors.)

5. *Internal assessment.* An internal assessment or survey specific to the organization can highlight potential opportunities for improvement.

6. *Advanced training.* In-depth educational programs that focus on topics such as sensitivity or diversity training to address issues of differences in values and perceptions influenced by age, gender, culture, ethnicity, and personality styles will help individuals appreciate how others might react to a particular situation. The goal is to improve communication, not just to address disruptive behaviors. Use of communication workshops may improve those skills. For example, the established Situation/Background/Assessment/Recommendation (SBAR) tool developed by Kaiser Permanente of Colorado (provided at www.ihi.org) provides a template to improve dialogue efficiency among parties.

7. *Communication and team collaboration.* Assertiveness training and team-building skills will help improve group communication efficiency and collaboration. These programs have a track record in reinforcing roles and responsibilities, restoring trust and respect, improving communication dynamics, and enhancing information flow, all of which lead to reducing the likelihood of communication gaps and the risk for potential compromise in patient safety.

8. *Incident reporting.* When incidents occur, they should be reported in a consistent manner. All complaints should be channeled to one committee and reviewed by a multidisciplinary group to avoid personal bias or potential conflicts of interest regarding the individuals involved. The committee should be responsible for directing the complaint to the appropriate party and ensuring that follow-up action is taken.

9. *Intervention.* Interventions may occur in three settings:

   - In the pre-crisis stage, recognizing individuals who are at risk for disruptive behaviors and providing appropriate early intervention has a greater potential for success than a postincident intervention, which may be perceived as confrontational and punitive.(46) Physicians who suffer from increasing levels of stress, frustration, burnout, and depression may not be aware of these issues that nevertheless drive their behaviors.(47) Early intervention by friends, family, or colleagues can help physicians recognize the extent of the problem and help them adjust accordingly. Proactive organizations offer specialized services through physician wellness committees or outside physician wellness companies.

   - An acute event requires immediate intervention, particularly if there is risk of potential and imminent patient harm. A variety of programs such as assertiveness training, team collaboration training, cockpit management, pit crew management, and others can help individuals gain the confidence to speak up immediately without fear of intimidation or retaliation.

   - Postevent interventions should be delivered by individuals skilled in conflict management and dispute resolution. For some individuals, particularly first-time offenders, the act of bringing the event to their attention will help them recognize the consequences of their behaviors, and the behaviors do not recur. Other individuals require a more comprehensive approach and in-depth training in stress or anger management or, in some cases, individualized therapy. Underlying substance abuse also should be considered, and the organization must be prepared to either restrict or terminate privileges for individuals who are resistant to help.

10. *Confluence with patient safety, quality, and risk management services.* This step integrates all of these programs with other risk management, quality management, and patient safety programs currently in place at the organization.

CONCLUSION

In the interest of managing risk and improving healthcare outcomes in regard to cost, quality, and patient safety, it is important to focus on both system and human factor issues that affect the process and outcomes of care.

Given the history, complexity, and hierarchical nature of the healthcare system, human factor issues are often difficult to address, particularly when they involve disruptive behaviors. Recognizing the personal and economic toll that disruptive behaviors take on staff relationships and patient care, organizations should recognize the value of a proactive approach to minimize risks by taking a firm stand in addressing inappropriate behaviors and investing in programs and services that improve communication efficiency and team collaboration.

With growing concern about the shortage of healthcare personnel,(48) individuals should be seen as precious resources. Programs designed to reduce the frequency and intensity of unprofessional behaviors and improve lines of communication and collaboration will increase satisfaction, improve relationships, boost productivity and efficiency, promote

compliance, improve outputs, and lessen the likelihood of an adverse event. Spending time and money to support such programs will provide a significant payback in the end.

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