

Impact and Implications of Disruptive Behavior in the Perioperative Arena

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- BACKGROUND:** There is a growing concern about the role of human factor issues and their effect on patient safety and clinical outcomes of care. Problems with disruptive behaviors negatively affect communication flow and team dynamics, which can lead to adverse events and poor quality outcomes.
- STUDY DESIGN:** A 25-question survey tool was used to assess the status and significance of disruptive behaviors around perioperative services in a large metropolitan academic medical center. Results were analyzed and compared with those from a national databank to identify areas of concern and opportunities for improvement.
- RESULTS:** Disruptive behaviors were a common occurrence in the perioperative setting. These types of behaviors were most prevalent in attending surgeons. Disruptive behaviors increased levels of stress and frustration, which impaired concentration, impeded communication flow, and adversely affected staff relationships and team collaboration. These events were perceived to increase the likelihood of medical errors and adverse events and to compromise patient safety and quality of care.
- CONCLUSIONS:** Disruptive behaviors in the perioperative arena have a significant impact on team dynamics and communication flow, which can have a negative impact on patient care. Organizations need to recognize the prevalence and significance of disruptive behaviors and develop policies and processes to address the issue. Key areas of focus include recognition and awareness, organizational and cultural commitment, implementation of appropriate codes of behavior policies and procedures, and provision of education and training programs to discuss contributing factors and tools to build effective communication and team collaboration skills. (J Am Coll Surg 2006;203:96–105. © 2006 by the American College of Surgeons)
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Disruptive behaviors between physicians, nurses, and other members of the health-care team have been shown to inhibit communication, collaboration, and information exchange, adversely affecting team dynamics and patient outcomes.¹ These types of behaviors are more prevalent in high-intensity areas, and are particularly prone to occur in the surgical setting.² In an effort to deal with such behaviors, organizations must identify the prevalence and significance of the problem and develop an appropriate action plan that sets parameters for acceptable behaviors, encourages a nonpunitive reporting environment, provides appropriate education and counseling, and reinforces the consequences of not abiding by agreed upon behavioral standards.³

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Research published in 2002 documented the impact of physician disruptive behavior on nurse satisfaction and retention.⁴ A followup study published in 2005 documented the significance of both nurse and physician disruptive behaviors and their negative effect on patient outcomes.¹ Results from these research projects showed a high predilection for disruptive behaviors to occur in high-stress areas, with a greater potential for patient harm.² For a variety of reasons, many of these disruptive events go unchallenged and can potentially lead to adverse patient outcomes. In an effort to assist a large academic medical center concerned about the impact of disruptive behaviors in the perioperative area, we conducted a comprehensive survey to assess the status of nurse-physician-staff relationships in the operating room to help identify opportunities for improvement.

Methodology

ABC Medical Center is a large academic medical center that was having difficulty dealing with disruptive behav-

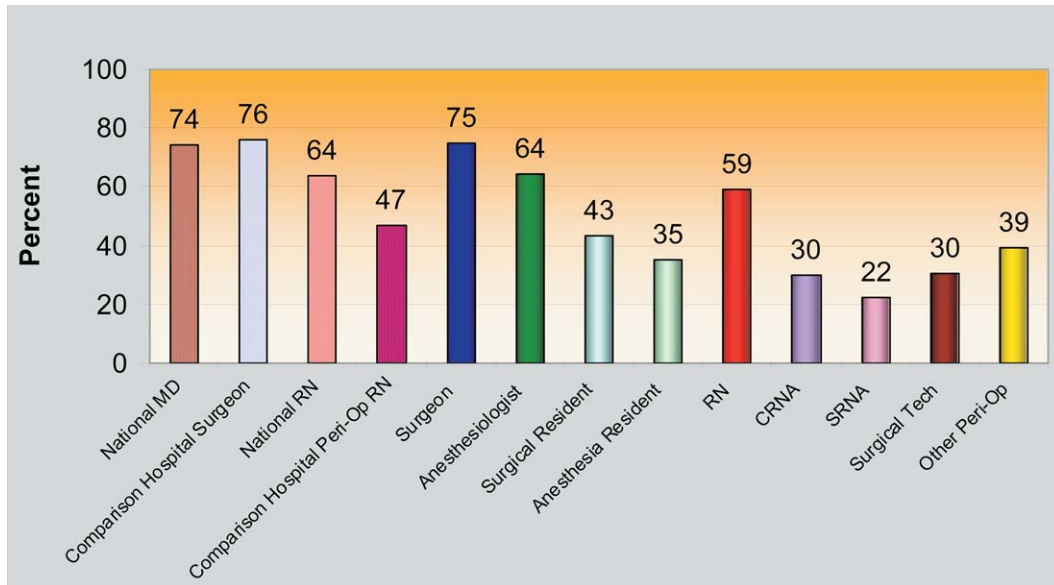


Figure 1. Have you ever witnessed disruptive behaviors in the perioperative area? Aggregate results by discipline.

iors in the perioperative arena. In an effort to address this concern, the organization requested that we use our nurse-physician relationship survey tool to assess the status of disruptive behaviors in this area. Based on our original survey instrument, a customized 25-question survey was designed and distributed to all physicians (attending surgeons, surgical residents, attending anesthesiologists, anesthesia residents), nurses, surgical technologists, nurse anesthetists (Certified Registered Nurse Anesthetists, Student Registered Nurse Anesthesiologists), surgical technologists, and other staff responsible for perioperative care.

Questions were in the forms of yes/ no, multiple choice, 5- or 10-point ratings-based Likert scales, and open-ended questions. The survey was reviewed and tested internally by a subgroup of physicians and nurses from Voluntary Hospital Association hospitals to establish face validity. The time period for survey completion was August through November 2005. A total of 244 participants (82 MDs, 71 RNs, 24 nurse anesthetists, 18 surgical technologists, and 49 other members of the perioperative team) completed the survey. Results were analyzed using SPSS software to determine the frequencies of the responses. Subtotals of the "sometimes," "frequent," and "constant" responses were combined to determine the percentage of participants who perceived negative psychologic and behavioral effects and negative clinical outcomes as common results of disruptive behaviors.

Results were compared with those from the national research database, which included responses from more than 4,000 nurses, physicians, and administrators at more than 100 hospitals across the country, ranging in size from large, metropolitan, academic centers to small, rural, nonprofit community hospitals. When appropriate, comparisons were made with the national group total (for all services) and with totals from another hospital (comparison hospital) that also had a focused analysis performed on perioperative care.

RESULTS

A major focus of the survey was the incidence of disruptive behaviors. Figure 1 displays discipline-specific responses to the question asking if one ever witnessed disruptive behaviors in the perioperative arena. Responses were aggregated by individual discipline. As a group, attending surgeons (75%), anesthesiologists (64%), nurses (59%), and surgical (43%) and anesthesia residents (35%) had the highest percentage responses to this question. The other group totals were all less than 40%. These responses were similar to results noted in the national and comparison hospital groups, which looked at disruptive behavior in physicians and nurses. Figure 2 shows how the individual disciplines reported observing disruptive behaviors in these high-response groups. In addition to nurses witnessing disruptive behaviors in physicians, there was also a high percentage of physicians

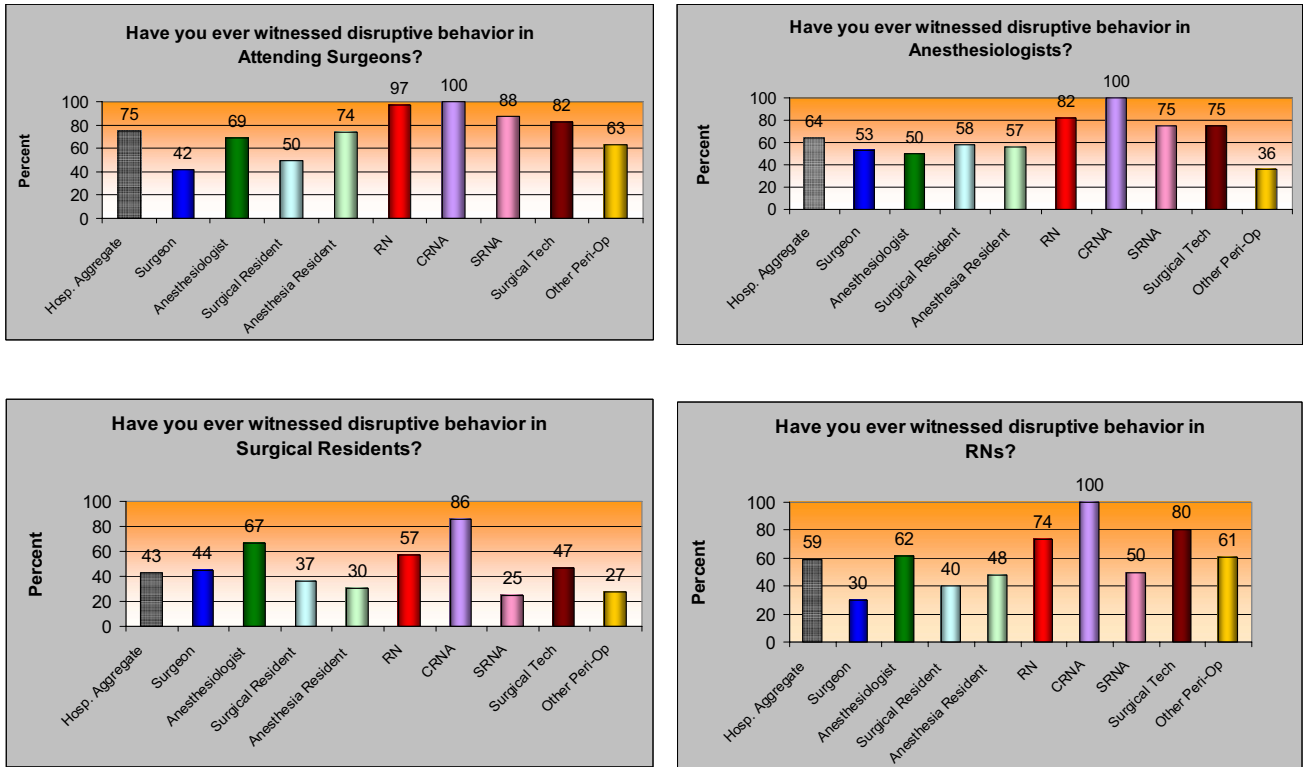


Figure 2. Have you ever witnessed disruptive behaviors in the following disciplines?

witnessing disruptive behaviors in other physicians and nurses witnessing disruptive behaviors in other nurses.

For the question “How often does disruptive behavior occur?” there was a wide range of responses that differed by individual discipline. Responses were recorded as never, 1 to 4 times a year, 1 to 2 times a month, weekly, and daily. Disruptive behavior by attending surgeons was witnessed by others on a daily basis 15% of the time, and on a weekly basis 22% of the time. Disruptive behavior by anesthesiologists was witnessed on a daily basis 7% of the time and on a weekly basis 12% of the time. Disruptive behavior by nurses was witnessed on a daily basis 7% of the time and on a weekly basis 21% of the time. Figure 3 shows the types of disruptive behaviors witnessed. On questioning the seriousness of disruptive behaviors, results sorted by discipline showed that the greatest concerns about the seriousness of disruptive behaviors came from the attending surgeons, anesthesiologists, and nurses (Fig. 4).

The next series of questions focused on the impact of disruptive behaviors on behavioral factors and clinical outcomes of care. Table 1 lists the questions used to

assess the perceived effect of disruptive behaviors on variables known to have an impact on key behavioral factors that influence thought processing and decision making. Choices were: never, rarely, sometimes, frequent, and constant. Results are presented in Figure 5. Responses recorded as sometimes, frequent, or constant were considered as being significantly likely to occur and having a negative effect. Combining the

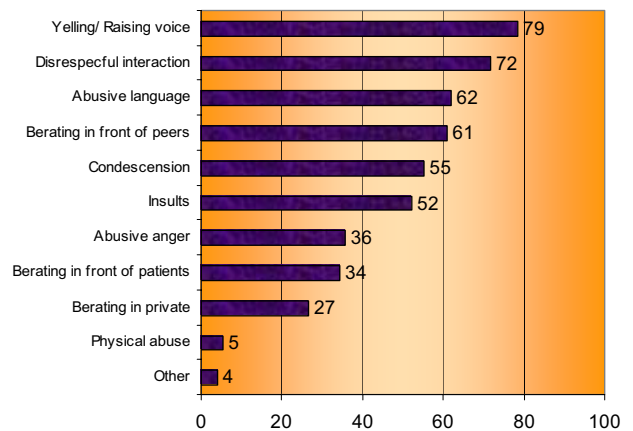


Figure 3. Types of disruptive behaviors witnessed; percent of “yes” responses.

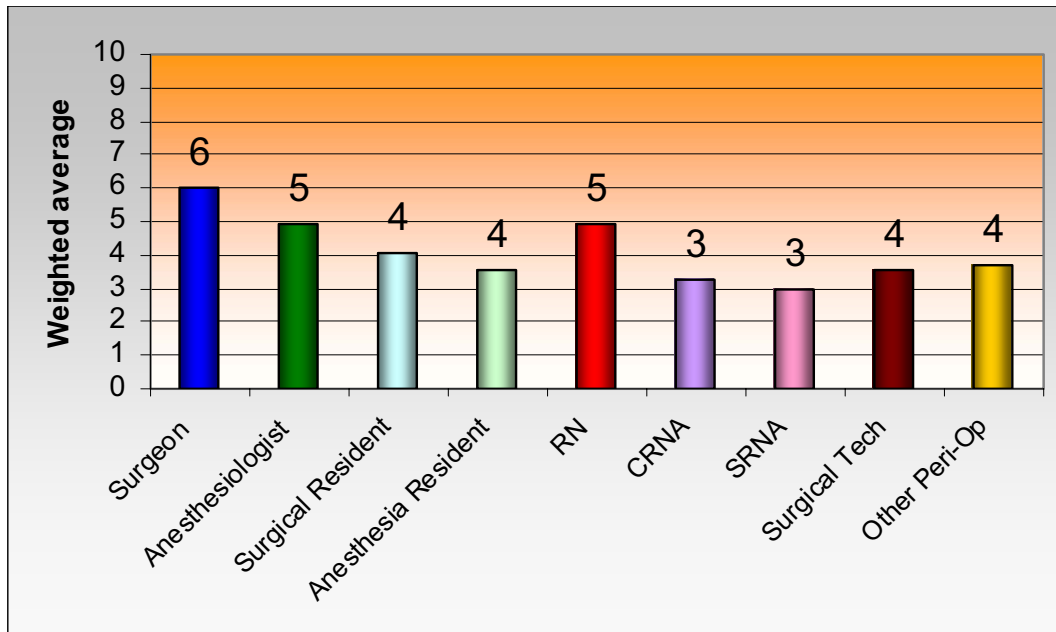


Figure 4. On a scale of 1 to 10, with 10 being the most serious, how serious of an issue is disruptive behaviors in the following disciplines?

sometimes, frequent, and constant responses, participants believed that disruptive behavior provoked or aggravated stress (93%), frustration (92%), loss of concentration (84%), reduced collaboration (89%), reduced information transfer (86%), reduced communication (89%), and impaired relationships (87%) a significant percentage of the time.

Table 2 lists the questions used to assess respondent perception of the linkage of disruptive behavior to clinical outcomes of care. Using the same question format as previously, response choices were: never, rarely, sometimes, frequent, and constant. Results are presented in Figure 6. Responses recorded as sometimes, frequent, or constant were considered as having a significant likelihood of occurring and having a negative effect. Combining the sometimes, frequent, and constant responses, participants believed that disruptive behavior was linked

to the occurrence of adverse events (67%), medical errors (67%), compromises in patient safety (58%), impaired quality (68%), and patient mortality (28%) a significant percentage of the time.

When asked if disruptive behavior could potentially have a negative effect on patient outcomes, 94% of the respondents believed it could. When asked if they were aware of any potential event that could have occurred from disruptive behavior, 46% of the group stated they were. When asked how serious an impact this could have on patient outcomes, 62% of the group responded serious, very serious, or extremely serious. When asked if they were aware of any specific adverse event that did occur as a result of disruptive behaviors, 19% said yes. This response was higher than the national average, but lower than the comparison hospital surgical subset (Fig. 7). When asked if

Table 1. How Often Does Disruptive Behavior Result in the Following?

	Never	Rarely	Sometimes	Frequent	Constant
Stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frustration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loss of concentration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced team collaboration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced information transfer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impaired nurse-physician relationship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

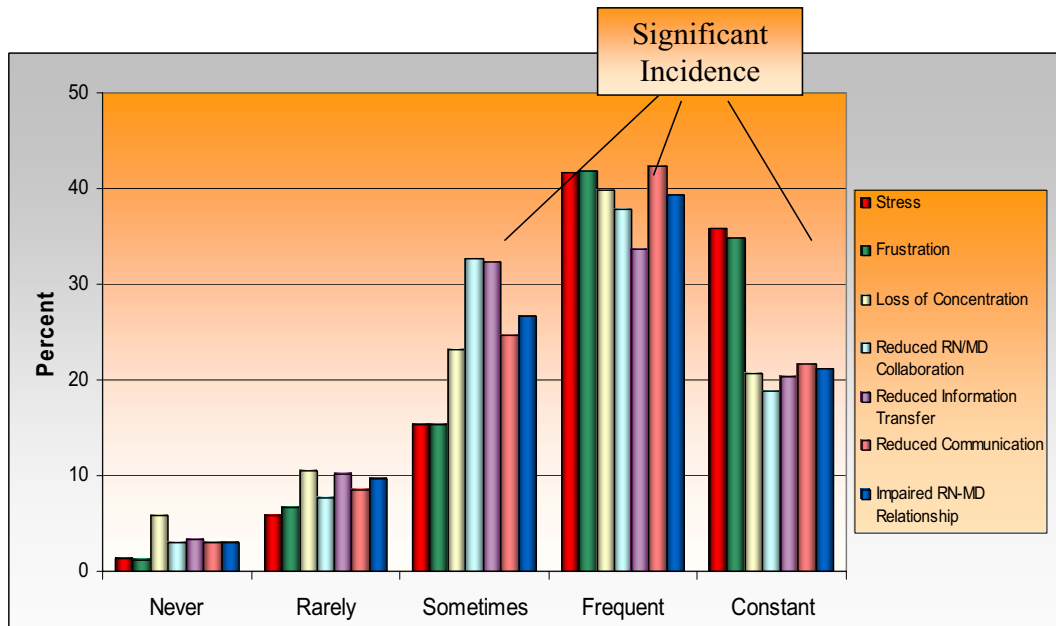


Figure 5. How often do you think disruptive behavior results in the following behavioral factors?

these adverse events could have been prevented, 80% of the group responded yes.

One of the most telling aspects of the survey was the Comments section. In this section, survey participants were offered a confidential opportunity to bring to the forefront any issues they thought appropriate to mention. Our experience has shown us that the Comments section provides a unique opportunity to really get a feel for the pulse of the organization. Although many comments were positive, the majority pointed to areas of significant concern. General themes included a testimony of disruptive attitudes, actions, and events that resulted in an unwillingness to confront or call physicians because of concerns about provoking an antagonistic response. Other comments that related to concerns about unrealistic scheduling and patient flow, staffing,

favoritism, competencies, rules and responsibilities, policies, and issues around equipment and supplies, also added fuel to disruptive outbursts. Selected comments are presented in Table 3.

DISCUSSION

According to a recent article appearing in the *Wall Street Journal*, “There is mounting evidence that poor communication between hospital support staff and surgeons is the leading cause of avoidable surgical errors.”⁵

Disruptive behaviors can have a significant impact on communication and team dynamics to the point where they can negatively affect patient care. Results from our previous surveys have shown that disruptive behavior can and does occur across the entire spectrum of care but appears to be more prominent in

Table 2. How Often Do You Think There Is a Link Between Disruptive Behavior and the Following?

	Never	Rarely	Sometimes	Frequent	Constant
Adverse events*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Errors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient mortality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nurse satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physician satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Adverse events: Any undesirable clinical patient experience that occurred during the hospitalization.

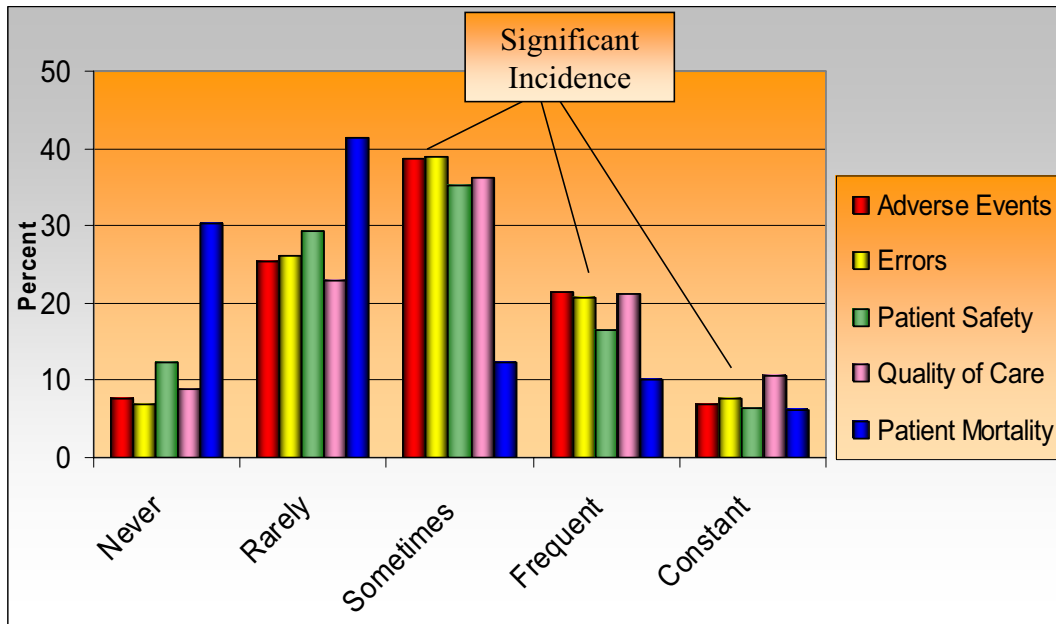


Figure 6. How often do you think there is a link between disruptive behaviors and the following clinical factors?

high-stress areas. Results from these studies indicated that the medical specialists ranked highest by nurses and physicians as having the greatest frequency of physician disruptive behaviors included general surgeons, cardiovascular surgeons, cardiologists, orthopaedic surgeons, neurosurgeons, and neurologists. The service areas most likely to experience disruptive behavior included the operating room, medical-surgery units, intensive care units, and emergency departments.^{1,2} Given the small physical confines of the operating suite, the strong interdependency on effective team function, and the high-stress nature of the

work, it is not surprising that disruptive behavior is so intensified in the surgical arena.

The results from this study suggest that at this organization, there is a disturbing undertone of disruptive behavior in surgery. Although disruptive behavior occurred across all the surgical disciplines, it was notably more prevalent among attending surgeons, anesthesiologists, surgical residents, and nurses.

Why does disruptive behavior occur? The answer is complex because disruptive behavior results from a number of factors, including home life and work experiences; training characteristics; cultural, ethnic,

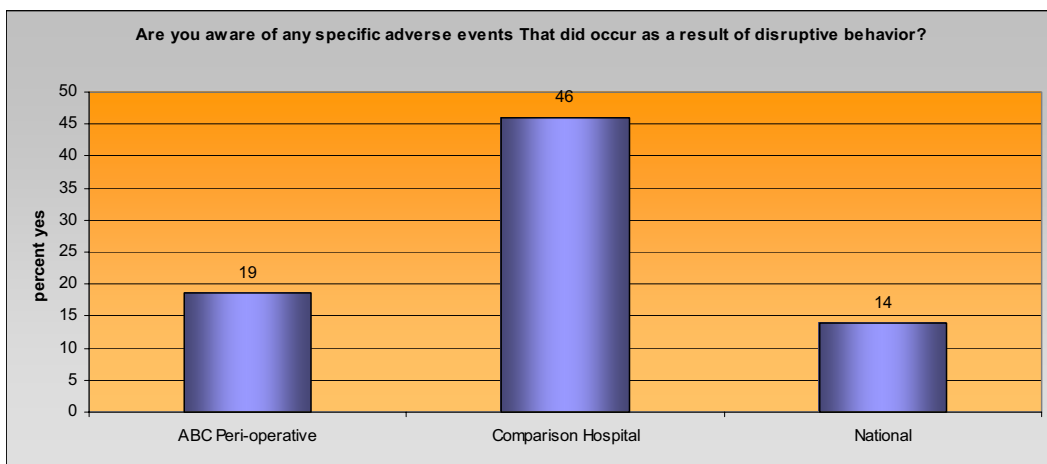


Figure 7. Are you aware of any specific adverse events that did occur as a result of disruptive behaviors?

Table 3. Comments Section: Selected Examples

<p>“Disruptive language/action and so on from surgeons’ and RNs’ negative attitudes are worse. It all feeds off of each other and continues to get worse as case and day goes on.”</p>
<p>“Some surgeons seem to believe that they have the right to be rude, verbally abusive, and disrespectful to nonphysicians. It makes it very difficult to perform at a high level when one is constantly in fear of being screamed at.”</p>
<p>“Surgeons have learned that disruptive behavior can intimidate others into doing what they want, and surgical residents seem to learn this behavior by observation.”</p>
<p>“When they schedule too many operations for one day, it is very frustrating for the entire perioperative team. The anesthesia team, surgeons, and nurses in the operating room get very frustrated and unhappy when they have to wait for a slot. The attending surgeons bark at the waiting in the operating room. I understand their frustration, but coming out of the operating room and raising their voice does not help the situation any. The days when the operating room schedule is too heavy are the days when disruptive behavior occurs.”</p>
<p>“For me, frustration builds due to lack of equipment, proper storage, shortages of staff, inconsistent scheduling of patient loads, and the push for more patient and operating room turnover.”</p>
<p>“We have some very kind, caring, and team-oriented surgeons . . . but the ones who are disruptive make it so intensely difficult that it is overwhelming. Unfortunately, as good as the good ones are, they can’t outweigh how bad the bad ones are.”</p>
<p>“Poor communication postoperatively because of disruptive reputation resulted in delayed treatment, aspiration, and eventual demise.”</p>
<p>“Failure of MD to listen to RN regarding patient’s condition. Patient had postoperative pulmonary embolism.”</p>
<p>“RN did not call MD about change in patient condition because he had a history of being abusive when called. Patient suffered because of this.”</p>
<p>“MD became angry when RN reported decline in patient’s condition and did not act on information. Patient required emergency intubation and transferred to ICU. This caused family much unnecessary heartache and disruption in family grieving process.”</p>
<p>“Surgeon speaking abusively to operating room personnel during procedure. Less attention to patient because of stress—more chance for error.”</p>
<p>“MD was told twice that sponge count was off. She said ‘they will find it later.’ Patient had to be reopened.”</p>
<p>“The disruptive behavior from nurses is much more upsetting. I expect that behavior from the surgeons NOT the nurses because I rely on them as my peers.” (RN)</p>
<p>“Please realize that most stress in the operating room is from RN managers not MDs.” (RN)</p>

generational, and gender biases; hierarchy and role perceptions; personal values; communication style; personality disorders; and other current events influencing real-time mood, attitude, and actions. Other factors influencing disruptive behaviors include the

traditional avoidance or reluctance in counseling physicians who voluntarily bring their patients to the hospital, and the fact that disruptive behaviors frequently get rewarded.

The most disturbing outcomes of the study were the impact of disruptive events on staff relationships, teamwork, and clinical outcomes of care. Disruptive behaviors raised stress and frustration levels, affected levels of concentration, and impeded communication, collaboration, and transfer of information, all of which are crucially important for optimizing outcomes of patient care. There was a strong association between the occurrence of disruptive behavior and its linkage to adverse events, medical errors, and compromises in patient safety, quality, and mortality. The vast majority of respondents believed that disruptive behavior could potentially have a serious negative effect on patient outcomes. Nineteen percent of respondents reported that they were aware of a specific adverse event that did occur as a result of disruptive behavior. Although no one ever wants an adverse event to occur, the frequency of hospital adverse events usually averages 2% to 3%. Of note, the vast majority of respondents thought that these adverse events could have been prevented.

Over the past several years, there has been a growing amount of literature linking the positive attributes of effective teamwork to improved outcomes of patient care.⁶⁻¹⁰ Only recently have we noted documentation of the results of poor teamwork and communication and their negative impact on patient care.^{1,11} Communication and teamwork are the keys to optimizing outcomes of care and preventing adverse events. The Joint Commission on Accreditation of Healthcare Organizations reported that 60% of all adverse events can be traced back to a communication error.¹² Communication errors occur when information is ignored, withheld, overlooked, or otherwise not reported, or when misunderstandings or wrong assumptions and conclusions are made, leading to delays or improper treatment. The goal is to identify issues before they become events. Concerns about communication failures and the reluctance of people to speak up and confront inappropriate behaviors are major barriers to success.^{13,14} These issues will be discussed in more detail later.

The Comments section highlighted other areas that need to be addressed. Although disruptive behavior is never an appropriate or acceptable response, frustrations in regard to staffing, scheduling, patient flow, delays in

Table 4. Recommended Protocols

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1. Organizational commitment
 2. Recognition and awareness
 3. Get-togethers
 4. Policies and procedures
 5. Reporting mechanisms
 6. Intervention strategies
 7. Communication tools
 8. Team training/competency training
 9. Clinical champions
 10. Operational adjustments
 11. Feedback, followup, and recognition
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service, equipment, competencies, preferential treatment, roles and responsibilities, and other clinical and operational contributors must all be addressed as part of the solution.

Recommendations

Table 4 outlines a series of recommendations applicable for any organization interested in approaching issues surrounding disruptive behaviors.

One of the first crucial steps in the process of evaluating the impact of disruptive behaviors is organizational commitment and willingness to address the situation. Commitment needs to come from the top down and bottom up, making a statement about the way the organization does business. The rallying point should be around behavioral standards and their relationship to patient safety. It's ironic that ever since the publication of the original Institute of Medicine report titled "To err is human," organizations have spent the bulk of their time and efforts in improving patient systems rather than addressing the human factor issues highlighted in the original report.¹⁵ Several recent reports have suggested that although we have made progress in the patient safety movement, we have a long way to go in meeting the Institute of Medicine recommendations.¹⁶ Addressing defects in communication that affect collaboration, information exchange, appreciation of roles and responsibilities, and direct accountability for patient care are key components of any patient safety program. When addressing disruptive behaviors, clinical and administrative leaders must set the tone by establishing and adhering to behavioral standards that support agreed upon code of conduct practices backed by a nonpunitive culture and a zero-tolerance policy.

The next step in the process is recognition and self-awareness. Organizations must be able to assess the prevalence, context, and impact of disruptive behaviors in an

effort to identify potential opportunities for improvement. An internal assessment will help pinpoint the seriousness of the situation and provide clues to issues that need to be addressed. Assessment information can be gained from gossip, direct observation, suggestion boxes, hot lines, incident reports, informal meetings, or more formal survey tools, focus groups, department meetings, task forces, or committees that allow input on these matters. In many organizations, there is still reluctance to address the issue head on for fear of antagonizing a prominent surgeon or staff member. With growing concerns about workforce shortages, staff satisfaction and retention, hospital reputation, liability and patient safety, and the need for compliance to the latest Joint Commission on Accreditation of Healthcare Organizations proposed standards addressing disruptive behaviors (Goal 16A), organizations can no longer afford to take a passive approach to the situation.¹⁷⁻²¹

Creating opportunities for the different groups to get together is a highly effective strategy for enhancing collaboration and communication. These group interactions can be either formal or informal. Encouraging open dialogue and collaborative rounds, implementing pre- or postoperative team briefings, and creating interdisciplinary committees or task forces that discuss problem areas frequently provide an upfront solution that reduces the likelihood of disruptive events. When a disruptive event does occur, some organizations have implemented "time-out," "code white," or "red light" policies that address the issue in real time to prevent any additional serious consequences.^{12,22}

Developing and implementing a standard set of behavior policies and procedures is a vital necessity. These policies need to be consistent and universally applied. There should not be a separate policy for any one particular discipline or service. For the medical staff, the policies should become part of the medical staff bylaws, with agreements to abide by these policies signed at the time of appointment and recredentialing. Included in the policies should be a standardized protocol outlining expected conduct and the process for addressing disruptive behavior issues, recommendations, followup plans, and actions to be taken in the face of individual resistance or refusal to comply. Before implementation, all employees should be made aware of the existence, purpose, and intent of the policies and procedures.

In order for the process to unfold, the organization must encourage its employees to report disruptive be-

haviors. In this context, the organization needs to address issues related to confidentiality, fear of retaliation, the common feeling that there is a double standard or that nothing ever gets done. Reporting mechanisms should be made easy and must be supported by the presence of a nonpunitive environment. Ideally, the situation should be reported and addressed in real time, but concerns about position, appropriateness, receptiveness, fear, hostility, and retaliation are significant impediments.¹⁴ Appropriate vehicles for reporting may include relating the incident to a superior, filing an incident report, using a complaint or suggestion box, or reporting directly to a task force or interdisciplinary committee with assigned responsibilities for addressing these issues.²² In addition to maintaining confidentiality and reducing risks of retaliation, one of the most crucial aspects of the reporting system is to give recognition and assurance that the complaints will be addressed and actions will be taken. Responses should be timely, appropriate, and consistent, and should provide necessary feedback and followup.

Action through appropriate intervention strategies is next. Surface-level generic educational programs can do a lot to spread the message and teach basic skills necessary to promote effective communication. Appropriate topics should include team dynamics, communication skills, phone etiquette, assertiveness training, diversity training, conflict management, stress management, and any other subjects that foster more effective team functioning and communication flow. Courses should be offered to all staff and employees at the organization, including physicians, physicians-in-training, nurses, nursing students, and all other staff who have patient contact or play a role in the delivery of patient care. For known offenders, education may need to be supported by more focused sessions or specific counseling. One other important strategy is to promote and assure competency training at all levels of the health-care team. This is a key factor affecting trust and respect, which have such a strong influence on team collaboration.

As mentioned earlier, it all comes down to communication. Communication is a two-way street involving both the initiator and receptor. Most communication failures result from a lack of appreciation or sensitivity regarding need, style, and perceptions. Offering a series of tools to promote effective communication delivery and reception is strongly recommended. General education tools should include courses or workshops on de-

veloping communication skills using role play examples to highlight the differences between intent and perception based on people's roles, values, styles, sensitivities, and expectations. More specific communication tools should be used as vehicles to provide more concrete structure and purpose to communication interchanges to assure appropriate, effective, and timely dialogue that leads to optimal outcomes. Tools such as the SBAR (Situation, Background, Assessment, Recommendation), the STICC (Situation, Task, Intent, Concern, Collaborate), or other scripted texts or checklists that reinforce dialogue that promotes the most efficient way to get from problem to request for action have been particularly effective in improving communication flow and information transfer, particularly in more acute health-care settings.¹²

Focused team training programs have been of particular value. A newer approach to improving team collaboration and patient safety is through the principles learned from the aviation industry. Fostering an environment of trust and respect, accountability, situational awareness, open communication, assertiveness, shared decision making, feedback and education, and interdisciplinary crew resource management training has brought significant improvements to communication flow in the perioperative setting.^{10,23,24} An additional element to the team training program is competency training. All members of the team need to trust and feel secure that other members of their team are well trained and able to carry out their responsibilities.

Having a clinical champion or early adopter who actively promotes the importance of appropriate behavior, communication, and team collaboration can be an extremely valuable asset. Champions can come from either the executive ranks or through the voluntary interest and enthusiasm of other staff members. Cochampions may even be more effective. Some organizations have reported that having a nurse and physician (or other) go through a joint training program will help foster mutual cooperation and collaboration between the different disciplines.²²

It is also important to address other operational factors that can contribute to a disruptive environment. Issues raised by physicians, nurses, and other staff members in regard to staffing, scheduling, equipment and supplies, or any other factors that affect patient flow or work demands across the spectrum of care from preoperation to surgery to recovery, need to be dealt with in a

timely manner, with feedback given that the issues have been noted and will be addressed. All of these factors may contribute to a disruptive environment that upsets team mechanics and increases the likelihood of errors or adverse events. It is actually more important to let people know that you've heard what they said and are actively investigating the situation than to come up with an immediate solution.

Followup, feedback, and recognition bring closure to the process. It is important to let people know that their input is welcomed, followup actions will be taken, and appropriate feedback will be provided. Recognize and reward those involved in the process.

In conclusion, disruptive behavior has been shown to have a significant effect on patient outcomes of care. Although the overall percentage of physicians, nurses, and other members of the health-care team who exhibit this type of behavior are relatively small, they can have a profound overall effect on team dynamics, morale, and patient care. These effects are dramatically intensified in the operating room suite because of the high stress level and intensity of services provided, the relative confines of a small physical space, and the strong interdependency between effective communication, teamwork, and collaboration. Given the growing concerns about accountability for providing high-quality outcomes and patient safety, workforce shortages, reputation, and liability, hospitals can no longer afford to take a passive approach and tolerate disruptive behaviors.

REFERENCES

- Rosenstein A, O'Daniel M. Disruptive behavior and clinical outcomes: perceptions of nurses and physicians. *Am J Nurs* 2005;105:54-64.
- Rosenstein A, O'Daniel M. Survey links disruptive behavior to negative patient outcomes. *OR Manager* 2005;21:1, 20.
- Rosenstein A, Lauve R, Russell H. Disruptive physician behavior contributes to nursing shortage. *Physician Executive* November-December 2002:8-11.
- Rosenstein A. The impact of nurse-physician relationships on nurse satisfaction and retention. *Am J Nurs* 2002;102:26-34.
- Landro L. Bring surgeons down to earth. *Wall Street Journal* November 16, 2005:D1, D4.
- Baggs J, Schmitt M, Mushlin A, et al. Association between nurse-physician collaboration and patient outcomes in three intensive care units. *Crit Care Med* 1999;27:1991-1997.
- Baggs JG, Ryan S, Phelps C, et al. The association between interdisciplinary collaboration and patient outcomes in a medical intensive care unit. *Heart Lung* 1992;21:18-24.
- Knaus W, Draper E, Wagner D, Zimmerman J. An evaluation of outcome from intensive care in major medical centers. *Ann Intern Med* 1986;104:410-418.
- Boyle D, Kochinda C. Enhancing collaborative communication of nurse and physician leadership in two intensive care units. *JONA* 2004;34:60-70.
- Sexton JB, Thomas EJ, Helmreich RL. Error, stress, and teamwork in medicine and aviation: cross sectional surveys. *BMJ* 2000;320:745-749.
- Smetzer J, Cohen M. Intimidation: Practitioners speak out about this unresolved problem. *Joint Commission Journal on Quality and Patient Safety* 2005;31:594-599.
- The Joint Commission Guide to Improving Staff Communication. Oakbrook Terrace, IL: Joint Commission Resources; 2005.
- Sutcliffe K, Lewton E, Rosenthal M. Communication failures: An insidious contributor to medical mishaps. *Acad Med* 2004;79:186-194.
- American Association of Critical Care Nurses. Silence kills. Available at: www.silencekills.com. Accessed April 20, 2006.
- Institute of Medicine. To err is human: Building a safer health system. Washington, DC: National Academy Press; 2000.
- Longo D, Hewett J, Ge B, Schubert S. The long road to patient safety: a status report on patient safety systems. *JAMA* 2005;294:2858-2865.
- Federal Court of Appeals broadly defines sexual harassment with serious implications regarding liability for misbehavior by disruptive health care practitioners. *Davis Wright Tremaine Health Law Bulletin*. September 2005:1-3.
- Adams D. Bully case verdict a warning to doctors. *Am Med News*, April 18, 2005:1-4.
- Joint Commission on Accreditation of Healthcare Organizations. Candidate 2007 hospital and critical access hospital national patient safety goals (NPSGS) and requirements. Available at: www.jcaho.org. Accessed April 20, 2006.
- Glabman M. The top ten malpractice claims and how to minimize them. *Trustee* 2004;57:12-16.
- Adams A. Bully case verdict a warning to doctors. Available at: amednews.com. Accessed April 20, 2006.
- Building the nurse-physician partnership: restoring mutual trust, establishing clinical collaboration. Washington, DC: The Health Care Advisory Board; 2005.
- Leming-Lee S, France D, Feistritz N, et al. Crew resource management in perioperative services: navigating the implementation road map. *JCOM* 2005;12:353-358.
- Grogan E, Stiles R, France D, et al. The impact of aviation-based teamwork training on the attitudes of health-care professionals. *J Am Coll Surg* 2004;199:843-848.