

Leadership

A Survey of the Impact of Disruptive Behaviors and Communication Defects on Patient Safety

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Ever since the publication of the Institute of Medicine Report *To Err Is Human*, health care organizations have received the wake-up call that they need to address the growing concern about patient safety¹; several follow-up reports have documented moderate improvement, but there are still large, disconcerting gaps between what we have been able to achieve and where we need to go.²⁻⁵ To advance further we need to improve our processes, systems, and technology, and at the same time address the human factor issues that affect bedside care.

We originally reported on the impact of disruptive physician behavior on nurse satisfaction and retention in 2002. The results of this research showed a significant relationship between disruptive physician behavior, poor nurse satisfaction and morale, and an increase in nurse turnover.^{6,7} As part of the research for this study, we searched for information on a relationship between disruptive behaviors and negative outcomes of care, but other than a few anecdotal stories, we could find no documented studies directly linking disruptive behavior to negative clinical outcomes.

In an effort to address the relationship of disruptive behaviors to potential compromises in patient outcomes of care, we extended the scope of the survey to include assessment of disruptive behaviors in nurses and other health care disciplines and evaluated their perceptions and experiences as to the impact of disruptive behaviors on patient care. These studies showed a significant relationship between both physician and nurse disruptive behaviors and worrisome psychological and behavioral traits, which led to impaired working relationships hampered by intimidation, hostility, stress, frustration, loss of focus, poor communication, and reduced transfer of necessary information, all of which adversely affected patient outcomes.^{8,9}

The Joint Commission reports in its root cause analysis of sentinel events that nearly 70% of the events can be traced back to a problem with communication.¹⁰ Effective January 1, 2009, The Joint Commission will require that the hospital (organization) “has a code of conduct that defines acceptable, disruptive,

Article-at-a-Glance

Background: A recent survey was conducted to assess the significance of disruptive behaviors and their effect on communication and collaboration and impact on patient care.

Survey: VHA West Coast administered a 22-question survey instrument—Nurse-Physician: Impact of Disruptive Behavior on Patient Care—to a convenience sample. Of the 388 member hospitals (in four VHA regions) invited, 102 hospitals participated in the survey (26% response rate). Results from surveys received from January 2004 through March 2007 are represented. Of the 4,530 participants, 2,846 listed their titles as nurses, 944 as physicians, 40 as administrative executives, and 700 as “other.”

Results: A total of 77% of the respondents reported that they had witnessed disruptive behavior in physicians—88% of the nurses and 51% of the physicians. Sixty-five percent of the respondents reported witnessing disruptive behavior in nurses at their hospitals—73% of the nurses and 48% of the physicians. Sixty-seven percent of the respondents agreed that disruptive behaviors were linked with adverse events; the result for medical errors was 71%, and patient mortality, 27%.

Discussion: The results from the survey show that disruptive behaviors lead to potentially preventable adverse events, errors, compromises in safety and quality, and patient mortality. Strategies to address disruptive behaviors should (1) prevent disruptive events from occurring, (2) deal with events in real time to prevent staff or patient harm, and (3) initiate postevent review, actions, and follow-up.

Recommendations: Twelve recommendations—including recognition and awareness, policies and procedures, incident reporting, education and training, communication tools, discussion forums, and intervention strategies—address what hospitals and other organizations can do now to address disruptive behaviors.

and inappropriate behaviors” (Element of Performance [EP] 4) and that “Leaders create and implement a process for managing disruptive and inappropriate behaviors” (EP 4).¹¹

In this article, we summarize our ongoing research on the significance of disruptive behaviors, their effect on communication and collaboration, and their impact on patient care.

Survey

DEVELOPMENT

The convenience sample survey was conducted by VHA West Coast, one of 17 regional offices of VHA Inc., a national alliance of more than 1,400 not-for-profit hospitals across the United States. In the absence of any prototype surveys addressing issues around the frequency, seriousness, or impact of disruptive behaviors, the investigators developed the 22-question survey instrument—Nurse-Physician Relationships: Impact of Disruptive Behavior on Patient Care*—with input from other VHA staff members and outside consultants. The survey was based on issues and experiences noted by our VHA member hospital nursing and physician leaders. The survey was reviewed and tested internally by distributing it to a subgroup of physicians and nurses from VHA hospitals. Surveys were field tested at Mayo Clinic Hospital in Scottsdale, Arizona, and Barnes-Jewish-Christian Hospitals in St. Louis, and revisions were made accordingly. The format for responses included “yes” or “no” questions, questions requiring a numerical grade based on a 10-point Likert scale, and an open section for individual comments.

Respondents

Surveys were open to all VHA member hospitals. On request, surveys were forwarded to the designated hospital contact person, who was responsible for distribution to the hospital medical staff, nursing staff, administration, and other requested disciplines. Respondents were self-selected and returned completed surveys to VHA West Coast for analysis.

Of the 388 member hospitals (in four VHA regions) invited, 102 hospitals participated in the survey (26% response rate). The hospitals ranged in size from large metropolitan academic teaching centers to smaller, rural, not-for-profit community hospitals. Results from surveys received from January 2004 through March 2007 are represented in this article. Data were analyzed using SPSS 15 for Windows (SPSS, Inc., Chicago). Each of the comments was manually recorded as a direct quote.

There were a total of 4,530 participants in the study. Of the

participants, 2,846 listed their titles as nurses, 944 listed their titles as physicians, 40 listed their titles as administrative executives, and 700 were listed as “other.” Included in this category were pharmacists, respiratory therapists, physical therapists, laboratory personnel, perioperative staff, and other health care workers.

Results

PHYSICIANS’ DISRUPTIVE BEHAVIOR

A total of 77% of the respondents reported that they had witnessed disruptive behavior in physicians at their hospitals. Of interest, 88% of the nurses reported witnessing disruptive behavior in physicians, and 51% of the physicians reported witnessing disruptive behavior in their peers (Figure 1a, page 466). When asked about which specialties were most likely to exhibit disruptive behaviors, respondents rated general surgery highest at 28%, and obstetrics/gynecology lowest (6%); all other specialties were at less than 5% (Figure 1b). Clinical settings mentioned most frequently were the medical units (35%), intensive care units (26%), operating room (23%), surgical units (20%), and the emergency department (7%). All other settings were mentioned by fewer than 5% of the respondents.

NURSES’ DISRUPTIVE BEHAVIOR

A total of 65% of the respondents reported witnessing disruptive behavior in nurses at their hospitals. These behaviors were witnessed 73% of the time by other nurses and 48% of the time by physicians (Figure 1c).

IMPACT OF DISRUPTIVE BEHAVIOR

A series of questions were designed to assess the respondent’s perception of the behavioral impact of disruptive behaviors on factors known to affect psychologic and behavioral reactions that may affect performance. The respondent was asked to rate his or her response to the question, “How often do you think disruptive behavior results in the following?” using a rating score of “never,” “rarely,” “sometimes,” “frequent,” or “constant.” When the latter three options were combined, 94% of the respondents, for example, indicated that disruptive behaviors provoked stress, 94% indicated that disruptive behaviors led to frustration, and 99% indicated that disruptive behaviors led to impaired nurse-physician relationships (Figure 1d). The next series of questions were designed to assess the respondent’s perception of the clinical impact of disruptive behaviors on patient care. The combination of “sometimes,” “frequent,” and “constant” responses indicated, for example, that 67% of the respondents felt that there was a linkage between disruptive

* The survey is available by e-mail request from Alan H. Rosenstein.

Survey Responses (N = 4,530), January 2004–March 2007

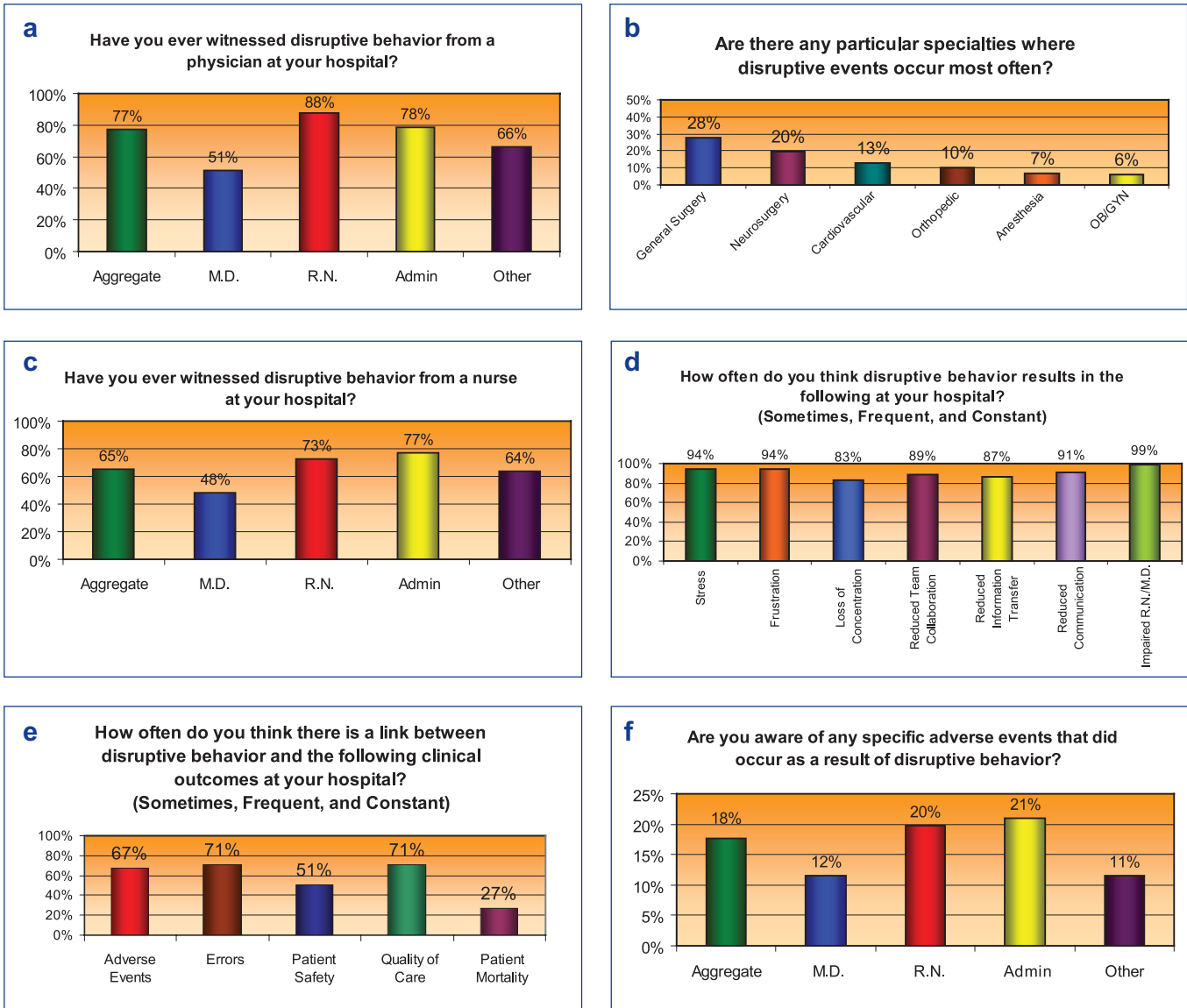


Figure 1. Percentage of respondents are shown for the survey questions. M.D., physician; R.N., nurse; OB/GYN, obstetrics/gynecology; Admin, administration.

behaviors and adverse events, 71% felt that there was a linkage to medical errors, and 27% felt that there was a linkage to patient mortality (Figure 1e). Eighteen percent of the respondents reported that they were aware of a specific adverse event that occurred because of disruptive behavior (Figure 1f), 75% of whom felt that the adverse event could have been prevented.

OPEN COMMENTS

The Open Comments section provided an opportunity for respondents to describe in more detail specific circumstances and events related to disruptive behavior. Several of the more striking comments are listed in Table 1 (page 467).

Table 1. Selected Respondent Comments

- Disruptive behavior results in patient dissatisfaction, errors, staff dissatisfaction, and lack of teamwork. Some nurses are afraid to call some physicians because they are afraid they will get yelled at over the phone, even though they have pertinent data to report. Nurses need to be organized and know how to give a thorough report. Physicians need to be patient and courteous and listen, particularly to young new nurses and not be yelling and intimidating.
- Most nurses are afraid to call Dr. X when they need to, and frequently won't call. Their patient's medical safety is always in jeopardy because of this.
- Disruptive behavior results in medication errors, slow response times, and treatment errors.
- Disruptive behavior caused increased stress and lack of concentration, which caused a nurse to make a mistake.
- Poor communication postop because of a disruptive reputation, resulted in delayed treatment, aspiration, and the patient's eventual death.
- My concern is that the new nurses are afraid to call about patient problems and issues that truly need to be addressed in a timely manner, affecting outcomes.
- Physicians become close minded to suggestions by nurses for different treatment, and so on, after becoming upset with staff for other reasons or insulted by nurses' ideas. All physicians should look at the physician-nurse relationship as a team approach, and if their ideas aren't working they should be willing to entertain the nurse's ideas for treatment. Also, some nurses should learn verbally appropriate way of approaching physicians.
- I am largely concerned about nurse-nurse relationships, as there is so much backbiting and unnecessary scrutiny that is a larger problem than physician-nurse relationships.
- It seems that there is an increasing lack of respect by nurses and other ancillary caregivers toward practicing clinicians in the hospital environment. Decisions by clinicians are frequently challenged, and some orders are flatly disobeyed or at least not carried through with almost reflexive propensity, and with little or no forethought.

Discussion

The results from the survey show that disruptive behaviors can cause significant psychologic and behavioral disturbances that can have a critical effect on focus and concentration, collaboration, communication, and information transfer, which in turn can lead to potentially preventable adverse events, errors, compromises in safety and quality, and patient mortality.

The current survey focused predominantly on disruptive behavior between physicians and nurses, but our research has shown that disruptive behaviors can occur across all disciplines.¹² Although the percentage of physicians and nursing

staff who are truly disruptive is small (3%–5%), these few can have a profound effect on the organization.^{6,8,9} The effects of physician disruptive behavior are more apparent because of their direct control over patient care. The finding that disruptive behavior in physicians occurs more frequently in particular specialties such as general surgery, cardiovascular, neurosurgery, and orthopedics may have to do with the basic personality traits of the physicians who choose these particular specialties.¹³ Other contributing factors include stress and satisfaction. A recent survey on physician satisfaction rated neurosurgery and neurology, cardiovascular surgery and cardiology, general surgery, and orthopedics as four of the physician specialties with the lowest overall physician satisfaction scores.¹⁴

In nursing and other disciplines, the effects of disruptive behaviors are more subtle, which may reflect unmet expectations and the changing role of nursing in today's health care system. With mounting concerns about nurse dissatisfaction, increasing turnover rates, and a growing shortage of nurses, more attention is being directed to nurses' disruptive behaviors. Whereas physician disruptive behavior is usually more direct and overt, nurse disruptive behaviors more frequently take the form of back-door undermining, clique formation, and other types of passive-aggressive behaviors.¹⁵

The effects of disruptive behavior on psychologic factors that can affect job performance are a significant issue. This is particularly true in a high-stress, high-intensity environment that deals with fast-paced complex issues. In such an environment, critical information and task responsibilities need to be shared between multiple people playing multiple roles during the process. The results from the current study indicate that more than 90% of the respondents felt that disruptive behaviors invoked feelings of stress and frustration; more than 80% felt that disruptive behaviors caused a loss of concentration, reduced team collaboration, and impaired information transfer; and more than 90% felt that disruptive behaviors led to poor communication and impaired nurse-physician relationships. These human factor issues are all known to play a crucial role in patient safety.^{16,17}

It is the impact on patient care that is the major concern. Results from the current study indicate that more than 70% of the respondents felt that there was a linkage between disruptive behaviors and medical errors and poor-quality care, more than two thirds felt that disruptive behaviors were linked to adverse events, more than 50% felt there was a linkage to compromises in patient safety, and more than one fourth of the respondents felt there was a linkage to patient mortality. We recognize that these statements reflect the perceptions of the survey

respondents and that these outcomes result from a number of different contributing factors, which makes it difficult to pinpoint a direct cause-and-effect relationship. However, 18% of the respondents reported that they were aware of a specific adverse event that occurred directly as a result of disruptive behaviors, and the statements made in the comment sections attest to the reality of the concern.

Once we recognize the significance of the problem, the next step is to implement strategies that address the issue. The goals are to (1) prevent disruptive events from occurring, (2) deal with events in real time to prevent staff or patient harm, and (3) initiate postevent review, actions, and follow-up.

Many of the organizations that participated in the survey have subsequently implemented significant changes in the way they approach disruptive behaviors. In each of these cases there has been strong clinical leadership, committed support from both administration and the board of directors, and a strong clinical champion(s) who helped drive the process. In many cases the efforts reinforced current projects focused on improving patient safety, staff satisfaction, and team collaboration. A common theme throughout was soliciting staff input, education and training, the setting of expectations, development of policies and procedures, and a consistent process in addressing and following through on specific incidents. A case study describes one hospital's approach to this issue (Sidebar 1, right).

Recommendations

We offer the following recommendations on the basis of what we have observed in our experiences with information gathered apart from the survey process from more than 100 hospitals, which organizations can implement right now to address the issue of disruptive behavior.

1. RECOGNITION AND AWARENESS

The first step in the process is to assess the frequency and significance of disruptive behaviors. The best way to accomplish this is to distribute a self-assessment survey in which respondents are asked to report on behaviors and events and their effect on job performance and/or patient care. All results need to be held confidential to ensure privacy and potential fears about retaliation.

2. CULTURAL COMMITMENT/LEADERSHIP/CHAMPIONS

The organization must adopt a top-down, bottom-up approach in which all staff and employees have a role and responsibility for their behaviors and are expected to adhere to a well-defined professional standard of behavior. Commitment

Sidebar 1. Case Study

In response to growing concerns about staff satisfaction and retention, a large metropolitan medical center began a concerted effort to address disruptive behavior and its effect on staff relationships and satisfaction. Backed by senior-level administrative and clinical leadership support, a nurse and physician leader were appointed as co-directors to develop and lead a process that would address disruptive behaviors across the entire organization. They started by developing a multidisciplinary nurse-physician collaborative committee. The program was rolled out in a housewide kick-off meeting, which was then followed by a series of monthly meetings to address key issues and concerns. A dedicated confidential intranet Web site was established to conduct ongoing surveys, report incidents, and/or provide other input, suggestions, or recommendations. At the same time, the organization offered a series of different educational programs, including phone etiquette, phone messaging, diversification training, and assertiveness training. Special attention was paid to improving efficiency in communications. Training was provided on when and how to call physicians and on the Situation-Background-Assessment-Recommendation (SBAR) tool, communication techniques, Crew Resource Management, and "difficult conversations." Physicians were given handwriting classes, nurses were given cell phones, and both nurses and physicians were encouraged to initiate collaborative morning patient rounds.

Given the large ethnic diversity of the employee staff, a special program on language proficiency with English as a second language was initiated to improve language competencies specifically around the medical environment.

The process was applied at the nursing unit level. Each nursing unit was required to appoint a nurse and physician champion and, after staff input, to select a project that the unit would work on in a collaborative fashion. The co-directors were responsible for facilitating and monitoring the unit-based projects and action plans. Best-practice examples were recognized through a series of different employee and physician awards and recognition ceremonies. To date, there are 47 individual unit-based physician/nurse collaborative groups in operation who collectively have been able to demonstrate repeat survey-supported improvements in satisfaction, morale, and clinical care.

and endorsement needs to come from the board, administration, and clinical leadership and be consistently applied across all levels of the organization. Support by impassioned physicians, nurses, and/or other staff who act as clinical champions can provide a boost in moving the initiative along.

3. POLICIES AND PROCEDURES

To reinforce appropriate behaviors, the organization must develop a clear definition of acceptable behavioral standards and criteria and establish a zero-tolerance policy for those not in compliance. These policies need to be standardized and con-

sistently applied across all levels of the organization. Specific disruptive behavior policies should be developed that outline the process for dealing with disruptive individuals. In many organizations, employees must sign a code of conduct agreement as part of their employee contracts, whereas physicians must sign a code of behavior agreement at the time of application for medical staff privileges, recredentialing, or employment. Organizations need to be willing and committed to take appropriate action in dealing with disruptive individuals regardless of their position or revenue-producing skills.

It's the right thing to do, but is the organization ready? Leape and Fromson question whether organizations are willing and able to tackle physician-sensitive issues and set policies and procedures to monitor and manage behavioral issues.¹⁸ A reluctance to confront and address behavioral problems; inadequate physician executive training, management skills, and experience; and a lack of a formalized program or systematic approach to address the more subjective issues of behavioral performance may all inhibit the development and implementation of an effective disruptive behavior program.

4. INCIDENT REPORTING

A standardized approach to reporting enables the organization to avoid many of the pitfalls and inconsistencies that hamper the current reporting process. Rather than depending on a system of handling complaints brought forth through a variety of channels such as informal verbal discussions, incident reports, suggestion boxes, sporadic agenda items at department or committee meetings, or the like, it would be best to adopt a uniform approach to event reporting. The survey participants voiced many concerns about the reporting process,^{6,8,9} including perceptions that nothing ever changes, that no feedback is received, that there is a strong fear of retaliation, and that there is a lack of confidentiality to the entire process. Encouraging people to report incidents, making it safe for them to do so, and providing appropriate follow-up to at least let them know that the complaint is being addressed are key components of an effective reporting system. Many organizations have set up a designated committee or task force, to which all incidents or complaints are directed and that takes responsibility for directing the issue to the appropriate authority.

5. STRUCTURE AND PROCESS

After the policies are in place and the reporting mechanism is well established, it is just as important to have a consistent, uniform methodology for addressing the issues. Having a core team of trained, capable individuals with a multidisciplinary

representation (including administration, human resources, physicians, and nurses) who follow a standardized process for event assessment, recommendations, and follow-up is a much more effective process than leaving it up to different individuals—with different roles, responsibilities, skill levels, and priorities—to make an appropriate, nonbiased decision.

6. INITIATING FACTORS

To prevent the occurrence of disruptive episodes, it is necessary to understand the background as to why these events might occur. Some of the outbursts are related to acute stressful situations, whereas others may reflect deep-seated values, perceptions, and actions based on gender, culture and ethnicity, age, personality, training, and life experiences. All these factors interact and affect staff perceptions, values, interactions, and relationships. Having a better understanding of such forces will provide a better opportunity for education and training programs designed to improve communication efficiency.¹²⁻²⁵

7. EDUCATION AND TRAINING

Education and training can play a key role in addressing many of the issues and potential barriers as described. The first level of education should be to focus on raising awareness of the concerns about disruptive behavior and its effect on patient care. In many cases, these issues can be discussed under the umbrella of an existing initiative, which might include programs focused on patient safety, risk management, and/or staff satisfaction. Depending on the situation, educational programs can range from something as simple as phone etiquette or “charm school” to more involved programs on sensitivity training, diversity training, stress management, anger management, conflict management, or assertiveness training. In some cases, individualized behavioral or psychological counseling may be required. Given some of the underlying issues related to culture, ethnicity, gender, and organizational hierarchy, specific courses on how to hold “difficult conversations” can be of particular value in reinforcing the importance of speaking up when something appears to be wrong.²⁶ In organizations where a large percentage of the staff speaks English as a second language, special courses on conversational English specifically tapered to the health care environment can be of tremendous benefit.

In addition, when staff interact with other staff members they want to be sure that the person is skilled and competent in following through on his or her expected duties. Competence can refer to knowledge and technical competence, as well as to communication competence in understanding what is being asked and how best to respond.

8. COMMUNICATION TOOLS

The issue is not just the 3%–5% of the medical or nursing staff who exhibit disruptive behaviors. The goal is to improve communication effectiveness in the other 50% of the staff who are just not good communicators. Communication is a two-way process. The first step is the intent of the initial message and the way the message is delivered. Body language and voice inclination have a greater impact on the receiver than the content of the message per se. The second step is the perception of the receiver as to the intent, meaning, and best way to respond. Teaching basic communication skills through training courses and role play is an excellent way of improving communication proficiency.

Beyond the basic communication skills, there are several specific tools and strategies designed to improve communication flow. The Situation-Background-Assessment-Recommendation (SBAR) tool provides a scripted way of presenting the necessary information in a concise, expedient manner that gives the receiver the necessary information to give a timely, appropriate response.²⁷ Many organizations have adopted experiences learned from the airline and car racing industry that focus on the benefits of Crew Resource Management, which supports the principles of teamwork and collaboration in regard to roles and responsibilities, trust, anticipation, discussion, and active involvement.^{28–31}

9. DISCUSSION FORUMS

One good way to improve communication is to just get people together. This can either be done informally, by encouraging staff interaction during patient rounds or joint conferences, or more formally, by putting nurses, physicians, and other staff members on specific task forces or committees to discuss nurse-physician-staff relationships.

10. INTERVENTION STRATEGIES

If disruptive events do occur, direct steps can be taken to minimize their impact. Some organizations have implemented a “code-white” policy, according to which selected individuals will respond to a call for assistance and help mediate during a disruptive event.³² Other organizations have implemented an immediate debriefing procedure to discuss conflicts or confrontations with constructive suggestions on how the situation could be handled better the next time. Above all, the organization must encourage and support any individual to speak up when he or she knows or sees something happening that can adversely affect patient care.

Conclusion

Although disruptive behavior is a sensitive subject that may involve prominent physicians or employee staff, the issue must be addressed to ensure best patient care. The organization needs to be committed to a culture of zero tolerance and to develop policies and procedures that define appropriate behavior standards that hold staff accountable for their actions. Offering education programs that provide a better understanding of background issues that influence thoughts and behaviors and implementing training programs to improve communication skills and team collaboration are crucial elements needed to support the process. Improving communication and collaboration will not only reduce the occurrence of preventable adverse outcomes but will also improve staff, patient, and physician satisfaction and morale. **J**

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References

1. Institute of Medicine: *To Err Is Human: Building a Safer Health System*. Washington DC: National Academy Press, 1999.
2. Institute of Medicine: *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press, Mar. 2001.
3. Longo D., et al.: The long road to patient safety: A status report on patient safety systems. *JAMA* 294:2858–2865, Dec. 2005.
4. The Joint Commission: *Improving America's Hospitals: A Report on Quality and Safety, 2007*. <http://www.jointcommissionreport.org/> (last accessed Jun. 23, 2008).
5. Wachter R.: The end of the beginning: Patient safety five years after “To Err Is Human.” *Health Aff (Millwood)* Suppl Web Exclusives:W4-534–W4-545, Nov. 30, 2004.
6. Rosenstein A.: The impact of nurse-physician relationships on nurse satisfaction and retention. *Am J Nurs* 102:26–34, Jun. 2002.
7. Rosenstein A., Lauve R., Russell H.: Disruptive physician behavior contributes to nursing shortage. *Physician Exec* 28:8–11, Nov.–Dec. 2002.
8. Rosenstein A., O'Daniel M.: Disruptive behavior and clinical outcomes: Perceptions of nurses and physicians. *Am J Nurs* 105:54–64, Jan. 2005.
9. Rosenstein A., O'Daniel M.: Impact and implications of disruptive behavior in the peri-operative arena. *J Am Coll Surg* 203:96–105, Jul. 2006.
10. The Joint Commission: *Sentinel Event Root Cause and Trend Data*. <http://www.jointcommissionreport.org/performance/results/sentinel.aspx> (last accessed Jun. 23, 2008).
11. The Joint Commission: *Hospital Pre-publication Chapter: The Leadership Standards*. http://www.jointcommission.org/AccreditationPrograms/Hospitals/Standards/hap_prepub_std.htm (last accessed Jun. 23, 2008).
12. Rosenstein A., O'Daniel M.: Nurse-physician communication: The impact of disruptive behaviors on factors affecting decision making affecting patient outcomes of care. In Blakely E.P. (ed.): *The Psychology of Decision Making in Health Care*. Hauppauge, N.Y.: Nova Science Publishers, 2007, pp. 195–213.

13. Maron B.A., et al.: Ability of prospective assessment of personality profiles to predict the practice specialty of medical students. *Baylor University Medical Center Proceedings* 20:22–26, Jan. 2007.
14. Press Ganey: *2007 Hospital Checkup Report—Physician*. http://www.pressganey.com/cs/research_and_analysis/physician_satisfaction (last accessed Jun. 24, 2008).
15. Bartholomew K.: *Ending Nurse-to-Nurse Hostility*. Marblehead, MA: HealthPro, 2006.
16. Reason J.: Human error: Models and management. *BMJ* 320:768–770, Mar. 2000.
17. Leonard M., Graham S., Bonacum D.: The human factor: The critical importance of effective teamwork and communication in providing safe care. *Qual Saf Health Care* 13(suppl. 1):85–90, 2004.
18. Leape L., Fromson J.: Problem doctors: Is there a system level solution? *Ann Intern Med* 144:107–115, Jan. 17, 2006.
19. Gray J.: *Men and Venus in the Workplace*. New York City: Harper Collins Publishers, 2004.
20. Peterson B.: *Cultural Intelligence: A Guide to Working with People from Other Cultures*. Boston: Intercultural Press, 2004.
21. Taylor S.L., Lurie N.: The role of culturally competent communication in reducing ethnic and racial healthcare disparities. *Am J Manag Care* 10(spec. no.):SP1–SP4, Sep. 2004.
22. Early P.C., Ang S.: *Cultural Intelligence: Individual Interactions Across Cultures*. Palo Alto, CA: Stanford University Press, 2003.
23. Kohls L.R., Knight J.M.: *A Cross-Cultural Training Handbook*, 2nd ed. Boston: Intercultural Press, 1994.
24. Zemke R., Raines C., Filipczak B.: *Generations at Work*. New York City: American Management Association, 2000.
25. Allesandra T., O'Connor M.: *The Platinum Rule: Discover the Four Basic Business Personalities and How They Can Lead You to Success*. New York City: Warner Books, 1996.
26. Patterson K., et al.: *Crucial Conversations: Tools for Talking When Stakes Are High*. New York City: McGraw-Hill, 2002.
27. Leonard M., Graham S., Bonacum D.: The human factor: The critical importance of effective teamwork and communication in providing safe care. *Qual Saf Health Care* 13(suppl. 1):85–90, 2004.
28. Grogan E., et al.: The impact of aviation-based teamwork training on the attitudes of health-care professionals. *J Am Coll Surg* 199:843–848, Dec. 2004.
29. Leming-Lee S., et al.: Crew resource management in perioperative services: Navigating the implementation road map. *Journal of Clinical Outcomes Management* 12:353–358, Jul. 2005.
30. Sexton J.B., Thomas E.J., Helmreich R.L.: Error, stress, and teamwork in medicine and aviation: Cross sectional surveys. *BMJ* 320:745–749, Mar. 2000.
31. Naik G.: A hospital races to learn methods of Ferrari pit stop. *Wall Street Journal*, pp. D1–D2, Nov. 14, 2006.
32. The Health Care Advisory Board: *Building the Nurse-Physician Partnership: Restoring Mutual Trust, Establishing Clinical Collaboration*. Washington, DC: The Health Care Advisory Board, 2005.

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