A Model of Disruptive Surgeon Behavior in the Perioperative Environment

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BACKGROUND: Surgeons are the physicians with the highest rates of documented disruptive behavior. We hypothesized that a unified conceptual model of disruptive surgeon behavior could be developed based on specific individual and system factors in the perioperative environment.

STUDY DESIGN: Semi-structured interviews were conducted with 19 operating room staff of diverse occupations at a single institution. Interviews were analyzed using grounded theory methods.

RESULTS: Participants described episodes of disruptive surgeon behavior, personality traits of perpetrators, environmental conditions of power, and situations when disruptive behavior was demonstrated. Verbal hostility and throwing or hitting objects were the most commonly described disruptive behaviors. Participants indicated that surgical training attracts and creates individuals with particular personality traits, including a sense of shame. Interviewees stated this behavior is tolerated because surgeons have unchecked power, have strong money-making capabilities for the institution, and tend to direct disruptive behavior toward the least powerful employees. The most frequent situational stressors were when something went wrong during an operation and working with unfamiliar team members. Each factor group (ie, situational stressors, cultural conditions, and personality factors) was viewed as being necessary, but none of them alone were sufficient to catalyze disruptive behavior events.

CONCLUSIONS: Disruptive physician behavior has strong implications for the work environment and patient safety. This model can be used by hospitals to better conceptualize conditions that facilitate disruptive surgeon behavior and to establish programs to mitigate conduct that threatens patient safety and employee satisfaction. (J Am Coll Surg 2014;219:390−398. © 2014 by the American College of Surgeons)

Disruptive conduct by physicians is increasingly cited as a problem in health care systems. The American Medical Association has defined disruptive physician behavior as "Conduct, whether verbal or physical, that negatively affects or that potentially may negatively affect patient care disruptive behavior. (This includes but is not limited to conduct that interferes with one's ability to work with other members of the health care team)."[1]

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Disruptive behavior can be overtly intimidating, such as inappropriate anger or threats, or passive conduct, such as avoiding assignments or demonstrating an uncooperative attitude toward work tasks. This behavior can be intentional or might occur with lack of awareness of its effects. Health care professionals in positions of power often exhibit these behaviors, and surgeons in particular have been documented as frequent offenders by both coworkers and patients.[2,3] The downstream effects of disruptive and intimidating physician behaviors are protean, and include decreased patient satisfaction, increased risk of patient harm, increased rates of staff attrition, and increased rates of litigation.

Although surgeons are most commonly identified as the perpetrators of disruptive behavior in the health care environment, no study has described the different modalities of disruptive behaviors that are commonly exhibited. In addition, no unifying model provides a framework for the occurrence of disruptive behaviors by surgeons. We hypothesized that semi-structured interviews and grounded theory analysis would generate a

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robust description of disruptive surgeon behavior, including catalysts for this behavior.

METHODS

The research design selected for this qualitative project followed a grounded theory methodological approach.[4-6] As defined by Strauss, this theory stresses extensive use of interviews in conducting research, highlighting the need for data immersion by the researcher to understand processes.[5] The aim of grounded theory methods was to produce innovative theory that is "grounded" in data collected from participants on the basis of the complexities of their lived experiences in a social context. The goal of this research project was to generate theory about the types and causes of disruptive surgeon behavior in the perioperative environment from the collected data. Use of the grounded theory process allowed us to explain how those that work in the operating room perceive disruptive surgeon behavior.

Participants

After receiving IRB approval, the study's participants were recruited at a single academic hospital setting through email requests for participants for a study on disruptive behavior by surgeons in the operating room. The final number of participants was determined by data saturation, and maximum variation of interviewees was sought to gather a wide range of experiences. Maximum variation was accomplished in the study by selecting participants from among those who responded to email to gather data from participants from a wide range of experiences. Participants were sought until information gathered from interviews no longer deepened or contradicted previous data.[4] Participants were purposively sampled with an eye to achieving maximum variation with respect to age, sex, and occupation to increase the likelihood that the findings would incorporate different perspectives.[7]

Data acquisition

A single interviewer with no personal or professional ties to the interviewees conducted all of the semi-structured interviews confidentially (WBE). Two broad questions addressing interviewees' experiences with disruptive surgeons and the meaning they made of those experiences guided the individual interviews. The first question was, "Can you tell me about a time when you saw a surgeon demonstrate disruptive behavior?" The participants spent 10 to 20 minutes responding to this question. The second question, which took 30 to 40 minutes to discuss, was, "Please explain why you believe the surgeon behaved in this way." More specific auxiliary questions focused participants' answers on particular concerns raised in the context of interviewee responses. The interviews were audiorecorded and transcribed. After the interview, each participant had the opportunity to review and approve his or her transcript for accuracy as a way to perform "member checking;" that is, to achieve trustworthiness and ensure that the data honored the meaning as conceived by the participants.[8,9] Both investigators had access to and reviewed all interview transcripts.

Study participants chose their own pseudonyms. The investigators removed education, religious affiliation, vocation, marital status, and names of any institution from transcripts to protect the confidentiality of participants. After the interview, each participant had the opportunity to review and approve his or her transcript for accuracy of content. This allowed them to confirm that any identifying information was removed, as well as to allow them to add, remove, or modify any portion of the transcript.

Throughout data collection, the investigators recorded impressions and ideas in journals. These notes were analyzed as well. Therefore, multiple sources provided confirmation of data, enhancing the study's rigor.[10]

Data analysis

Grounded theory methodology is based on the process of analyzing the narratives of interviewees, then developing codes, categories, and themes that are grounded in their descriptions, and, finally, generating hypotheses about how these themes interplay.[4,10] Throughout the study, the authors maintained self-reflective journals, as well as analytic and theoretical memos according to the principles of grounded theory design.[6,11-13] This procedure created documentation of observations during data collection, including how data were organized into categories, connections made between pieces of data, processes that developed, and identification of various themes expressed by the participants. The two authors met regularly to analyze data, including providing feedback, challenging one another's data analysis, adding to emerging thoughts, consulting for ongoing feedback on codes and emerging themes, and bringing to light one another's own subjectivities as researchers. The credibility of this qualitative study was achieved through a triangulation of data sources, including participant checking, peer debriefing, and audit trails.[14]

In accordance with grounded theory analysis, data were analyzed using open, axial, and selective coding.[6] First, in open coding, the data were organized into pieces of meaning formed by phrases, sentences, or paragraphs in which the participants expressed their experiences. These verbal elements were then organized into theme-based categories. Second, in axial coding, these categories were compared to determine inter-relationships.[15] The categories were continually revised as new data were obtained