Excising the "Surgeon Ego": Progress Made and Paths Forward for Enhancing the Culture of Surgery

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RUNNING HEAD: Excising the "Surgeon Ego"

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Progress Made and Paths Forward for Enhancing the Culture of Surgery

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Recent years have seen a palpable change in the surgical community, with significant efforts invested in shifting towards a more positive, humanistic surgical culture and away from a hyper-competitive or ego-oriented cultural reputation.[1-3] These recent changes reflect a broad recognition of bullying, ego-driven behaviors, and disruptive attitudes that pose a risk to surgical culture and can significantly impact patient care outcomes.[2,4,5] However, the objective and subjective evidence that has prompted these efforts has not been explicitly explored and understood within the surgical community.

From time to time, drastic examples of this behavior arise that generate increased scrutiny and discussion, but these are often fleeting and do not fuel substantive changes. For example, in December 2017, transplant surgeon Dr. Simon Bramhall was convicted of assault in the United Kingdom for cauterizing his initials on patients' livers during operations.[6] Unnecessary cauterization of any kind may be considered a reckless behavior, but the choice to cauterize his own initials highlights the element of ego in this behavior. Indeed, the judge in his case described the action as "conduct born of professional arrogance of such magnitude that it strayed into criminal behavior".[6]

Understanding the significant accumulating evidence in the medical literature – and the broad existing evidence in the organizational sciences – demonstrating the deleterious effects of ego-driven culture may provide even more impetus for this movement and help to generate more sustainable change in the practice of surgery. Fortunately, cases of extreme arrogance seem rare among surgeons (although, unfortunately, this is not the first time patients have been allegedly marked with surgeons' initials[7]). However, milder forms of ego-driven behavior are still observed in modern surgery. A recent *JAMA Surgery* study of "unsolicited patient observations"

among surgeons[8] highlighted examples of patient complaints about surgeons' arrogant, intimidating, or rude behavior, such as:

> "I asked Dr. Y how long he thought the operation would take. He said, 'Look, your wife will die without this procedure. If you want to ask questions instead of allowing me to do my job, I can just go home and not do it.'"[8](p523)

Ultimately, though high-profile cases of arrogant behavior (such as Dr. Bramhall's) garner significant attention, recognizing these milder forms of ego-driven disruptive behavior, and their consequences, is important for the smooth functioning of health care organizations and the well-being of those who work within them. In this article, we draw from research in the medical and organizational behavior literatures to outline the deleterious effects of surgeon ego on the practice of surgery in modern health care organizations. We also highlight the progress made in shifting surgical culture in a more positive direction, as well as potential solutions to accelerate this change.

What is the Problem?

Overconfidence has long been noted as a potentially problematic issue among physicians in general,[9] and the practice of surgery holds a particular reputation for ego-oriented behaviors. For instance, in one study of the "dark triad" personality traits – narcissism (of which arrogance is considered a key component[10]), Machiavellianism, and psychopathy – among health care professionals, surgeons were found to have significantly higher levels of narcissism than their non-surgeon colleagues.[11] Other research has found greater numbers of disruptive behaviors and patient complaints among surgeons than non-surgeons.[12-16]

There is no doubt an important role for healthy self-confidence in medicine, and surgery in particular. The ability to take decisive action in the face of complex, time-sensitive, and high-stakes procedures requires a confident disposition and belief in one's own abilities to step up and lead – to be the "captain of the ship." But particularly in the modern era of multidisciplinary

care, where the "captain of the ship" is less clear,[17] it is important that this necessary and beneficial confidence not give way to more disruptive ego. Even among actual captains – i.e., airline pilots – there is widespread recognition of the value of humility and the potentially mortal consequences of a captain's ego, as in the numerous accidents traced to an inability or unwillingness of others to speak up to a pilot-in-command to identify or correct an error (for example, the 2011 crash of First Air flight 6560[18]).

While unprofessional behavior amongst surgeons is not universal, even a few "bad apples" can significantly disrupt patient care and perpetuate the reputation of surgical culture as ego-oriented.[3] As medical students are selecting career paths and specialties, they often develop perceptions of surgeons as overly self-confident, to the point of being arrogant, and believe that they need to fit this stereotype in order to be a successful surgeon.[13,19] This widespread perception raises a concern about self-selection, where individuals comfortable with this behavior are more likely to go into the surgical profession – and more importantly, that the profession loses potentially brilliant minds that are averse to these behaviors. Compounding this selection effect, surgical training may at times perpetuate "down the chain" bad behavior and may unintentionally encourage residents to carry forward this disruptive behavior in their future practice.[3] These dual pressures of selection and socialization are worrisome insofar as they may push well-intended individuals from reasonably confident to problematically arrogant through the course of surgical training.

What are the Consequences?

Notwithstanding the preceding examples, we could find relatively little research directly examining the consequences of arrogant behaviors on surgical outcomes. However, drawing on the more robust literature in the organizational sciences dealing with these topics, as well as

research in surgery that touches on this issue indirectly, there are important inferable consequences of such behavior among surgeons. For instance, higher levels of arrogance in the workplace are associated with worse job performance,[20] and meta-analytic evidence reveals a strong relationship between higher levels of narcissism and counterproductive behaviors in work organizations, as well as evidence of a link between narcissism and worse job performance among those in positions of authority.[10,21] At the same time, research has also established arrogance's opposite – expressed humility – as a key positive predictor of an individual's (e.g., a leader's) work performance, tempering the effects of narcissism and improving the engagement, satisfaction, and retention of those whom the individual is leading.[22,23]

Some surgical research has addressed arrogant behavior indirectly. For example, Cooper et al found that accumulation of patient complaints about disrespectful surgeon interactions with patients and staff significantly predicted complication and readmission rates for that surgeon.[8] These types of disruptive behavior can draw attention away from patient care, while potentially increasing medical errors and impacting the well-being, turnover, and collaboration of others in the perioperative environment.[5,13,14]

What Does the Future Hold?

In light of these negative consequences for teamwork, well-being, learning, and patient care, it is important that the surgical community recognizes and addresses practices and norms that might unintentionally encourage or condone this counterproductive, ego-oriented behavior. Effective change will require a multidisciplinary effort including surgeons, anesthesiologists, nurses, and the many professionals vital to perioperative care. Dr. Bramhall was not alone in the operating room while cauterizing his initials into his patients' livers – yet no one stopped him. It was only years later that he was held accountable for these actions. A key first step is simply

acknowledging that this behavior – both in its extreme forms, as well as its less severe manifestations – can disrupt interprofessional teamwork, decrease situational awareness, and inhibit communication in ways that ultimately impact quality, safety, and patient outcomes. However, although this acknowledgement will no doubt move the discussion around this important issue forward, creating lasting change requires more systematic efforts to understand and address these behaviors, and will require altering the fundamental norms and practices that may unwittingly keep the behaviors alive.

There have been important efforts made in recent years to curb this behavior. For instance, the University of Michigan Promise in Advancing Surgical Excellence is a longitudinal investment to build, recruit, and create an inclusive and welcoming environment for current and future surgeons. [24] Social media campaigns such as #ILookLikeASurgeon[25] have highlighted long-standing biases and problematic attitudes within surgery, sparking important discussion and change. Finally, surgical governing bodies have stepped up efforts to combat negative aspects of surgical culture. For instance, the Royal Australasian College of Surgeons' 2016 *Let's Operate with Respect* campaign focused on ending bullying, discrimination, and sexual harassment in surgery, noting that "these have been real problems for our profession. Almost half of us have experienced it, many more of us have witnessed these behaviours, and things have to change."[26]

However, many of these efforts remain relatively sporadic and isolated within specific institutions or regions. A more systematic, evidence-based, and interprofessional approach is needed in order to develop grounded interventions and reliably assess key outcomes of surgical culture and practice. Helping to foster this area of inquiry, the American Medical Association's new emphasis on health systems science as the third pillar of medical education (joining basic

and clinical sciences) is a step in the right direction.[27] The curriculum provides a framework for understanding aspects of health care delivery not traditionally taught in medical schools, such as teamwork and leadership.[28] Further, far more research is needed directly assessing the impact of different forms of surgeon behavior – including not only the presumed negative effects of arrogant behavior, but especially the potential beneficial effects of surgeon humility – on patient care processes and outcomes. For instance, in-depth, interpersonal simulations could be developed for assessing and training surgeons as they engage in the complex inter-professional dynamics of an operating room. These interpersonal, non-technical skills have been increasingly highlighted as drivers of patient outcomes[29-32] and have been implicated, for instance, in the differential ability of surgical units to rescue patients after major postoperative complications.[33-35] Incorporating these types of interpersonal, non-technical skills simulations into the ongoing assessment and training of surgical residents is particularly important (and consistent with ACGME core competencies),[36] in order to break the cycle of selection and socialization described earlier as enablers of these negative surgeon behaviors.

The typical surgeon today no doubt possesses an appropriate, reasonable degree of confidence and self-assurance, as well as a healthy level of humility. But as we continue to observe cases of behavior that depart from the normal bounds of confidence and cross into arrogance, it is imperative that the field at large re-iterate its commitment – both in word and deed – to selecting, training, and maintaining a population of surgeons prepared to act and interact in ways that deliver the best outcomes to patients in the modern health care environment. Given the monumental shifts and progress made in just the last few years, the future is bright.

Key Messages

- Surgical culture is in the midst of a significant change towards a more positive and humanistic culture, in part as a response to both extreme and subtle ego-driven, disruptive behavior among surgeons.
- Significant evidence from both the medical and organizational sciences demonstrates substantial negative consequences for ego-oriented behavior in complex work environments such as surgery.
- Considerably more research and systematic exploration of ways to further reduce ego-oriented behavior and increase humility in the practice of surgery are needed.

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Contributors and Sources

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guarantor. The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted.

Competing Interests

We have read and understood BMJ policy on declaration of interests and declare the following interests: CGM, YLM, and AAG declare no competing interests.

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