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Should Surgeons Share Experiences of Regret With Patients?

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Abstract

Regret is ubiquitous in surgical practice and emphasizes the nature and breadth of surgeons' responsibilities to patients and colleagues. Expressing regret to patients requires transparent and honest communication but can leave surgeons vulnerable. This article recommends strategies for communicating regret to patients and suggests how organizations and colleagues can help surgeons trying to cope with regret experiences continue their professional growth.

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Responsibility and Regret

In surgery, high-stakes situations and complex decision-making lie at the heart of the weighty responsibility surgeons carry. Several studies of psychological impacts on surgeons of surgical incidents, complications, and adverse events note similar experiences of frustration, self-doubt, cognitive challenges, and regret.^{1,2,3,4} Regret is defined as a negative emotion that arises from thinking that a different choice might have led to a better or more preferred outcome.⁵ For example, a surgeon might regret not recommending a more aggressive treatment option earlier in a case of progressive cancer, believing such a recommendation could have improved the patient's downstream prognosis. Another surgeon may regret performing a high-risk surgery that led to complications, questioning if a conservative approach would have been safer or resulted in different outcomes. In these instances, regret stems from unfavorable outcomes that might not always be predictable or avoidable and that result from inaction (not recommending a treatment) or action (performing a more aggressive operation). This type of regret is distinct from regret that stems directly from preventable errors resulting in patient harm (eg, performing surgery on the wrong limb, forgetting to give prophylactic anticoagulation), which may be additionally associated with remorse or guilt.⁶ Experiencing regret may be inevitable for surgeons, as unfavorable outcomes (with or without associated errors) can happen despite the best efforts and sound judgment of even the most experienced and respected surgeons.

This article discusses the impacts of regret on surgeons and recommends strategies for communicating regret to patients. It also suggests how organizations and colleagues can help surgeons trying to cope with regret experiences continue their professional growth.

Impacts of Regret on Surgeons

Harms. Work to date shows that unfavorable patient outcomes that elicit feelings of guilt, failure, and self-doubt can profoundly affect physicians' well-being and sense of professional identity.^{7,8,9} In fact, "second victim syndrome" (SVS) is a defined phenomenon that describes the lasting feelings of emotional distress that clinicians experience after negative outcomes.¹⁰ A 2024 scoping review identified regret as one of the manifestations of SVS in surgeons, along with guilt, depression, and self-doubt, which have been shown to precipitate burnout, acute traumatic stress, and suicidal ideation.¹¹ In particular, regret and rumination can lead to surgeon self-doubt in decision-making and difficulty concentrating at work.^{12,13} These sequelae can have profound consequences.

Benefits. However, emerging work shows that unfavorable patient outcomes can also facilitate self-reflection and lead to greater personal and professional growth.^{12,13,14} Qualitative research on surgeons who had experienced unfavorable outcomes highlights that learning and reflecting in purposeful ways are crucial for improving **future decision-making**, judgment, and communication skills.^{14,15} This growth process can be facilitated by better communication with patients and peers.¹² In fact, studies of surgeons' reactions to adverse events highlight how communicating with patients' families and receiving forgiveness or sharing grief can offer emotional relief for surgeons and strengthen patient-physician relationships.⁷

Both surgeons and patients support disclosure. A survey of mixed-specialty surgeons in the Veterans Affairs system found that a majority expressed regret to patients for adverse events and held positive attitudes toward disclosure, examples of which include moral responsibility (eg, "it's the right thing to do"), personal well-being (eg, alleviating guilt), and strengthening trusting relationships with patients.¹⁶ Studies of patients also show that sharing regrets humanizes doctors and deepens patients' trust.^{17,18} Despite the demands of expressing difficult emotions, transparent communication has been shown repeatedly to enhance patient autonomy, aid in shared decision-making, and help surgeons reflect, thereby improving future decisions and reducing long-term negative impacts.^{19,20,21}

Not surprisingly, expressing regret is part of national guidelines for disclosure and is deemed crucial to communicating negative outcomes and adverse events to patients.^{22,23} Yet qualitative research exploring how surgeons handle communication of unfavorable outcomes highlights that surgeons' reluctance to express regret stems from fears of losing patients' trust, damage to their reputation, and legal or professional consequences.^{17,24} Despite these concerns, research suggests that apologies or acknowledgments of errors can lower settlement and liability costs and expedite legal proceedings.^{21,25,26} Conversely, evidence indicates that poor communication and insensitive handling of negative outcomes often precede patients' decisions to pursue legal action,²⁷ underscoring the importance of supporting surgeons' expressions of regret to patients via training in skills, such as patient-centered communication, and in local laws concerning disclosure, for example. Recognizing there will be subtle differences in the setting of unavoidable negative patient outcomes as opposed to

preventable medical errors, we will nonetheless explore guidance on best practices for communication and supporting surgeons faced with the task of disclosure in either context.

Best Practices

Expressing regret is a key component of open disclosure and requires a nuanced approach. Below, we outline best practices for expressing regret to patients, ways institutions can support surgeons, and strategies for surgeons to support their well-being. However, while guidelines for disclosure exist, it is important to understand specific legislation pertaining to disclosure and apology laws, which generally protect physicians when expressing sympathy and, in some cases, admissions of fault,²⁸ although they can vary by state²⁶ or country of practice. Thus, a universal first step in managing negative outcomes should be to contact institutional legal counsel for risk management.

Sincere communication with patients. Once the local legal landscape has been clarified, surgeons can support affected patients and families by expressing regret following established guidelines that recommend using clear and sincere language and avoiding any speculative statements.²² National guidelines developed by Australia's Commission on Safety and Quality in Health Care outline specific steps, which include acknowledging and apologizing for the event ("I am/we are sincerely sorry for what has occurred"), providing factual explanations for what happened, and describing measures to prevent recurrence if any errors occurred.²³ Additionally, the guidelines recommend avoiding language that implies blame or speculation ("I would say that the night shift staff probably neglected to..."), vague apologies ("I apologise for whatever it is that happened"), passive apologies ("Mistakes were made"), or conditional apologies ("If I did anything wrong, I'm sorry").²³ Expressing regret requires a patient-centered approach that includes providing an objective recollection of what happened, followed by sincere apologies.

Sincerity in expressing regret depends on tone and body language. Studies show that physicians' nonverbal communication—such as expressions of empathy, warmth, and listening—are associated with patient satisfaction with clinical interactions.²⁹ The EMPATHY protocol, a nonverbal communication training tool,³⁰ has been proven in a randomized controlled trial to enhance physician empathy as rated by patients.³¹ The acronym stands for nonverbal behaviors for conveying empathy during patient interactions, which include maintaining *eye contact* and being aware of *muscles of facial expression*, as well as *posture* (eg, sitting at eye level). It also includes assessing patients' *affect* or emotional state and using a compassionate *tone of voice* to express understanding of the patient's situation. By focusing on the patient and imagining what it is like to have the patient's personal life experiences, the surgeon conveys that they are *hearing* the patient as a whole person (ie, not just treating their disease). Finally, having curiosity about or monitoring *your response* (eg, tension in the body, feelings of frustration) to what you are hearing in difficult interactions could help bring a mindful approach to emotionally charged situations.³⁰ Literature suggests that physicians who are better attuned to these nonverbal behaviors can strengthen their patients' perceptions of physician sincerity.³²

Techniques also exist to help surgeons navigate emotionally charged situations. The SPIKES protocol is a widely used communication tool in health care.³³ It entails ensuring a private *setting* to minimize interruptions, assessing the patient's or families'

perceptions of the situation (what they already know, hope for, or expect) through open-ended questions, *inviting* questions about preferences for receiving (or not receiving) difficult news, providing information appropriate to the patient's or family's level of *knowledge* and understanding, addressing their *emotions* with empathy and patience, and offering *strategies* to provide hope and **encourage shared decision-making** to achieve outcomes together.³⁴ If the situation becomes highly emotional, the conversation can be paused, and resources for further emotional, psychological, or spiritual support should be readily provided.

Supporting surgeons. Evidence suggests support for surgeons is lacking in the work environment, with institutions typically responding punitively to unfavorable outcomes or preventable errors.¹³ Studies reveal that more structured support is needed from institutions that includes fostering a work culture wherein transparent communication is encouraged without fear of retribution.^{11,35} Models for institutional responses to adverse events include the University of Michigan's Michigan Model and the CANDOR toolkit from the Agency for Healthcare Research and Quality (AHRQ), which aim to foster honest communication and commitment to learning from errors to enhance patient safety and reduce the financial and emotional burdens associated with medical malpractice.^{36,37}

While morbidity and mortality conferences (MMC) are standard platforms for discussing complications, evidence suggests that their structure offers limited emotional support for surgeons and could exacerbate feelings of self-blame.⁴ Research suggests that supportive and blame-free environments allow surgeons to feel comfortable in sharing regret and promote better learning during MMCs.^{11,38} Pang and Warraich argue for humanizing MMCs by restructuring MMCs as shorter, focused sessions for collective reflection, as well as by incorporating compassion, empathy, and respect by asking questions such as "What was the personal impact of a patient's adverse outcomes on the well-being of the health care staff involved?" or "How did we comfort the patient's family following the patient's death?"³⁹ Studies also reveal that discussing negative outcomes with other surgeons is the most effective form of support, as it can foster open communication, normalize emotions in difficult situations, and reduce negative feelings.^{4,11}

Although surgeons can support each other by recognizing when a colleague needs help and reaching out, studies suggest doing so can be challenging due to feelings of discomfort in discussing negative outcomes or fear of eliciting negative reactions and perceptions from colleagues.^{7,40} Institutionally supported strategies to help surgeons navigate difficult conversations with colleagues include the AHRQ's Care for the Caregiver Program, which involves preemptively training peers in critical communication and fostering a culture that normalizes intense emotions after negative outcomes.^{41,42} This program, developed for long-term services and crisis assistance, involves learning key conversation skills (ie, ensuring privacy, discussing struggles, showing care without assumptions, and using open-ended questions) while providing ongoing follow-up support. Nationally, additional resources include the American Foundation for Suicide Prevention, which offers support for those with self-harm thoughts, as well as the free, confidential Physician Support Line, which helps physicians and medical students navigate crises or other personal and professional challenges.^{43,44}

Finally, surgeons can preemptively cultivate individual **coping strategies** to handle difficult emotions. Evidence supports the importance of surgeons' recognizing and managing reactions to challenging situations, avoiding denial, and embracing difficult

emotions, all of which can be formally cultivated through mindfulness-based skills training.^{7,45} Several studies indicate that emotional self-awareness is crucial for building authentic connections and improving patient-physician relationships.^{46,47,48} While experiencing regret can be painful, studies show that expressing regret to peers and patients can rebuild internal confidence, strengthen connections with others, encourage self-reflection, and help reframe what it means to be an “ideal surgeon.”^{8,49} As such, expressing regret can mean the difference between burnout and professional growth.

Conclusion

The discussion of whether surgeons should share experiences of regret involves balancing the ethical imperative for transparency with potential legal and professional repercussions. While disclosing regret can enhance trust, improve patient-physician relationships, and contribute to surgeons’ emotional recovery and professional growth, these outcomes are predicated on a safe legal landscape, humane institutional culture, and systems-level resources. Providing clear guidelines and support systems to help surgeons navigate these disclosures will ensure that both patient welfare and surgeon well-being are maintained.

References

1. Serou N, Sahota L, Husband AK, et al. Systematic review of psychological, emotional and behavioural impacts of surgical incidents on operating theatre staff. *BJS Open*. 2017;1(4):106-113.
2. Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW. The natural history of recovery for the healthcare provider “second victim” after adverse patient events. *Qual Saf Health Care*. 2009;18(5):325-330.
3. Yaow CYL, Ng QX, Chong RIH, et al. Intraoperative adverse events among surgeons in Singapore: a multicentre cross-sectional study on impact and support. *BMC Health Serv Res*. 2024;24(1):512.
4. Le HD, Wolinska JM, Baertschiger RM, Himidan SA. Complication is inevitable, but suffering is optional—psychological aspects of dealing with complications in surgery. *Eur J Pediatr Surg*. 2023;33(3):181-190.
5. Wilson A, Ronnekleiv-Kelly SM, Pawlik TM. Regret in surgical decision making: a systematic review of patient and physician perspectives. *World J Surg*. 2017;41(6):1454-1465.
6. Little M. The role of regret in informed consent. *J Bioeth Inq*. 2009;6(1):49-59.
7. Luu S, Patel P, St-Martin L, et al. Waking up the next morning: surgeons’ emotional reactions to adverse events. *Med Educ*. 2012;46(12):1179-1188.
8. Kim DT, Shelton W, Applewhite MK. Clinician moral distress: toward an ethics of agent-regret. *Hastings Cent Rep*. 2023;53(6):40-53.
9. Orri M, Revah-Lévy A, Farges O. Surgeons’ emotional experience of their everyday practice—a qualitative study. *PLoS One*. 2015;10(11):e0143763.
10. Sachs CJ, Wheaton N. Second victim syndrome. In: *StatPearls*. StatPearls Publishing; 2024. Accessed November 25, 2024. <https://www.ncbi.nlm.nih.gov/books/NBK572094/>
11. Chong RIH, Yaow CYL, Chong NZY, et al. Scoping review of the second victim syndrome among surgeons: understanding the impact, responses, and support systems. *Am J Surg*. 2024;229:5-14.
12. Boyle FM, Allen J, Rey-Conde T, North JB. Learning from regret. *Br J Surg*. 2020;107(4):422-431.
13. Pinto A, Faiz O, Bicknell C, Vincent C. Surgical complications and their implications for surgeons’ well-being. *Br J Surg*. 2013;100(13):1748-1755.

14. Luu S, Leung SOA, Moulton CA. When bad things happen to good surgeons: reactions to adverse events. *Surg Clin North Am*. 2012;92(1):153-161.
15. Whalen A, Collins C. Unmasking the silent struggle: second victim syndrome among surgeons. *Am J Surg*. 2024;229:3-4.
16. Elwy AR, Itani KMF, Bokhour BG, et al. Surgeons' disclosures of clinical adverse events. *JAMA Surg*. 2016;151(11):1015-1021.
17. Gallagher TH, Waterman AD, Ebers AG, Fraser VJ, Levinson W. Patients' and physicians' attitudes regarding the disclosure of medical errors. *JAMA*. 2003;289(8):1001-1007.
18. O'Connor E, Coates HM, Yardley IE, Wu AW. Disclosure of patient safety incidents: a comprehensive review. *Int J Qual Health Care*. 2010;22(5):371-379.
19. Berry DL, Wang Q, Halpenny B, Hong F. Decision preparation, satisfaction and regret in a multi-center sample of men with newly diagnosed localized prostate cancer. *Patient Educ Couns*. 2012;88(2):262-267.
20. Lam WWT, Kwok M, Chan M, et al. Does the use of shared decision-making consultation behaviors increase treatment decision-making satisfaction among Chinese women facing decision for breast cancer surgery? *Patient Educ Couns*. 2014;94(2):243-249.
21. LeCraw FR, Montanera D, Jackson JP, Keys JC, Hetzler DC, Mroz TA. Changes in liability claims, costs, and resolution times following the introduction of a communication-and-resolution program in Tennessee. *J Patient Saf Risk Manag*. 2018;23(1):13-18.
22. Safe Practices Consensus Committee. *Safe Practices for Better Healthcare—2010 Update: A Consensus Report*. National Quality Forum; 2010. Accessed November 26, 2024. https://www.qualityforum.org/Publications/2010/04/Safe_Practices_for_Better_Healthcare_%E2%80%932010_Update.aspx
23. Australian Commission on Safety and Quality in Health Care. *Saying sorry: a guide to apologising and expressing regret during open disclosure*. Australian Commission on Safety and Quality in Health Care; 2013. Accessed September 16, 2024. https://www.safetyandquality.gov.au/sites/default/files/2021-09/saying_sorry_-_a_guide_to_apologising_and_expressing_regret_during_open_disclosure.pdf
24. Bell SK, White AA, Yi JC, Yi-Frazier JP, Gallagher TH. Transparency when things go wrong: physician attitudes about reporting medical errors to patients, peers, and institutions. *J Patient Saf*. 2017;13(4):243-248.
25. Chamberlain CJ, Koniaris LG, Wu AW, Pawlik TM. Disclosure of "nonharmful" medical errors and other events: duty to disclose. *Arch Surg*. 2012;147(3):282-286.
26. Ross NE, Newman WJ. The role of apology laws in medical malpractice. *J Am Acad Psychiatry Law*. 2021;49(3):406-414.
27. Vincent C, Young M, Phillips A. Why do people sue doctors? A study of patients and relatives taking legal action. *Lancet*. 1994;343(8913):1609-1613.
28. Bender FF. "I'm sorry" laws and medical liability. *Virtual Mentor*. 2007;9(4):300-304.
29. Henry SG, Fuhrel-Forbis A, Rogers MAM, Eggly S. Association between nonverbal communication during clinical interactions and outcomes: a systematic review and meta-analysis. *Patient Educ Couns*. 2012;86(3):297-315.
30. Riess H, Kraft-Todd G. E.M.P.A.T.H.Y.: a tool to enhance nonverbal communication between clinicians and their patients. *Acad Med*. 2014;89(8):1108-1112.

31. Riess H, Kelley JM, Bailey RW, Dunn EJ, Phillips M. Empathy training for resident physicians: a randomized controlled trial of a neuroscience-informed curriculum. *J Gen Intern Med.* 2012;27(10):1280-1286.
32. Lorié Á, Reiner DA, Phillips M, Zhang L, Riess H. Culture and nonverbal expressions of empathy in clinical settings: a systematic review. *Patient Educ Couns.* 2017;100(3):411-424.
33. Mahendiran M, Yeung H, Rossi S, Khosravani H, Perri GA. Evaluating the effectiveness of the SPIKES model to break bad news—a systematic review. *Am J Hosp Palliat Care.* 2023;40(11):1231-1260.
34. Kaplan M. SPIKES: a framework for breaking bad news to patients with cancer. *Clin J Oncol Nurs.* 2010;14(4):514-516.
35. Lin JS, Olutoye OO, Samora JB. To err is human, but what happens when surgeons err? *J Pediatr Surg.* 2023;58(3):496-502.
36. The Michigan Model: medical malpractice and patient safety at Michigan Medicine. University of Michigan Health. Accessed May 21, 2024. <https://www.uofmhealth.org/michigan-model-medical-malpractice-and-patient-safety-umhs>
37. Communication and Optimal Resolution (CANDOR) toolkit. Agency for Healthcare Research and Quality. Accessed May 21, 2024. <https://www.ahrq.gov/patient-safety/settings/hospital/candor/modules.html>
38. de Vos MS, Verhagen MJ, Hamming JF. The morbidity and mortality conference: a century-old practice with ongoing potential for future improvement. *Eur J Pediatr Surg.* 2023;33(2):114-119.
39. Pang S, Warraich HJ. Humanizing the morbidity and mortality conference. *Acad Med.* 2021;96(5):668-670.
40. Balogun JA, Bramall AN, Bernstein M. How surgical trainees handle catastrophic errors: a qualitative study. *J Surg Educ.* 2015;72(6):1179-1184.
41. Slat EA, Parsley IC, Gold JA. Recognizing decline in physician wellbeing: when to seek help or intervene. *Mo Med.* 2021;118(6):494-498.
42. Care for the Caregiver Program implementation guide. Agency for Healthcare Research and Quality. Accessed May 21, 2024. <https://www.ahrq.gov/patient-safety/settings/hospital/candor/modules/guide6.html>
43. Talk Away the Dark. #RealConvo Guide—if someone tells you they're thinking about suicide. American Foundation for Suicide Prevention. Accessed May 14, 2024. <https://talkawaythedark.afsp.org/thinkingaboutsucide/>
44. Physician support line. Physiciansupportline.com. Accessed May 14, 2024. <https://www.physiciansupportline.com>
45. Gonzales PA, Coopersmith AS, Kaushik D, et al. A mindful approach to complications: brief review of the literature and practical guide for the surgeon. *Urol Oncol.* 2024;42(10):302-309.
46. Fuehrer S, Weil A, Osterberg LG, Zulman DM, Meunier MR, Schwartz R. Building authentic connection in the patient-physician relationship. *J Prim Care Community Health.* 2024;15:21501319231225996.
47. Ko CJ, Kim R, Fortin AH 6th, Spak JM, Hafler JP. Relationship-centered care in the physician-patient interaction: improving your understanding of metacognitive interventions. *Cutis.* 2021;107(6):320-324.
48. Stewart M, Brown JB, Freeman TR. The fourth component: enhancing the patient-clinician relationship. In: Stewart M, Brown JB, Weston WW, et al. *Patient-Centered Medicine: Transforming the Clinical Method.* 4th ed. CRC Press/Taylor & Francis; 2024:132-146.

49. Summerville A, Buchanan J. Functions of personal experience and of expression of regret. *Pers Soc Psychol Bull.* 2014;40(4):463-475.

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