AMA Journal of Ethics®

April 2018

Volume 20, Number 4: 307-417

Ethical Considerations in Plastic and Reconstructive Surgery

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 309-323

PEER-REVIEWED CME ARTICLE: ORIGINAL RESEARCH

Facial Disfigurement and Identity: A Review of the Literature and Implications for Facial Transplantation

William J. Rifkin, Rami S. Kantar, MD, Safi Ali-Khan, Natalie M. Plana, J. Rodrigo Diaz-Siso, MD, Manos Tsakiris, PhD, MSc, and Eduardo D. Rodriguez, MD, DDS

Editor's Note: To claim one AMA PRA Category 1 Credit™ *for the CME activity associated with this article, you must do the following: (1) read this article in its entirety, (2) answer at least 80 percent of the quiz questions correctly, and (3) complete an evaluation. The quiz, evaluation, and form for claiming* AMA PRA Category 1 Credit™ *are available through the AMA Education Center.*

Abstract

Facial disfigurement can significantly affect personal identity and access to social roles. Although conventional reconstruction can have positive effects with respect to identity, these procedures are often inadequate for more severe facial defects. In these cases, facial transplantation (FT) offers patients a viable reconstructive option. However, FT's effect on personal identity has been less well examined, and ethical questions remain regarding the psychosocial ramifications of the procedure. This article reviews the literature on the different roles of the face as well as psychological and social effects of facial disfigurement. The effects of facial reconstruction on personal identity are also reviewed with an emphasis on orthognathic, cleft, and head and neck surgery. Finally, FT is considered in this context, and future directions for research are explored.

Introduction

"Self-concept" is an idea of the self that is constructed based on how one thinks about, evaluates, or perceives oneself as well as on the responses of others to the self. Baumeister et al. define it as "the individual's belief about himself or herself, including the person's attributes and who and what the self is" [1]. The relationship between self-concept, body-image, and appearance is well documented [2, 3], and thus facial disfigurement can have profound psychosocial implications. Substantial research has described the benefits of traditional facial reconstruction with respect to self-concept [4-10]; however, these procedures are often inadequate for more severe facial defects.

Facial transplantation (FT) has become a viable reconstructive option for many patients with severe facial defects, particularly victims of burns and trauma and those with benign tumors like neurofibromatosis. Despite early successes and promising outcomes, ethical concerns remain, particularly with regard to issues of self-concept and the psychosocial consequences of the procedure [11]. Complicating the risk-benefit ratio of this novel procedure, FT recipients require lifelong immunosuppression to prevent rejection, which is associated with renal toxicity, metabolic complications, opportunistic infections, and increased risk of malignancy [12]. FT thus creates a tradeoff between potential improved disfigurement and the chronic disease state associated with required lifelong immunosuppression.

This review will highlight the roles of the face, with a focus on self-concept, as well as the psychosocial impact of facial disfigurement and conventional facial reconstruction. Self-concept will then be evaluated in the context of severe facial disfigurement and FT, and the bioethical implications of the procedure will be considered with an emphasis on psychosocial issues.

Roles of the Face

The face serves a dual role as both a biological organ and an organ of identity. Like other organs, the face has unique anatomy and physiology that contribute to its biological functions [13]. Facial skin acts as an anatomic barrier, retaining body water and regulating heat [14]. Specialized structures perform distinct functions: the eyelids maintain ocular lubrication [15]; the nasal airway conditions and filters inspired air [13, 16]; and the lips form a tight seal around the mouth, allowing consumption of food or drink [16] and normal speech [13]. The face is also an important sensory organ, containing the highest density of free nerve endings in the body [17, 18]. Furthermore, facial proprioceptive information is integral to the sensorimotor processes of speech and other facial movements, and it has been suggested that facial nerve endings might also have immunoregulatory roles [19, 20].

As important as its physiological functions is the key role of the face in identity. Self-concept revolves around the face, as it is the primary means by which humans recognize and interact with each other [13] and the primary mode of self-expression, emotional expression, and social interaction [21]. The intimate relationship between self-concept and appearance is also well documented [2, 3], and the face is a major component of body image and self-worth [22]. It affects how one is perceived and evaluated by others, guiding their impressions and behavior. Important decisions such as life partner and job selection are influenced by biases that depend partly on facial appearance [23], as are criminal justice verdicts [24, 25] and congressional elections [26]. Facial features and skin qualities are major determinants of physical attractiveness and mate selection [13, 27, 28]. Unsurprisingly, attractiveness is the quality that has received the greatest focus in facial appearance research [29]. Those with attractive faces have proven social

advantages and are perceived as more popular, assertive, and self-confident [13, 29-33]. These important social consequences of facial attractiveness help to explain the pivotal role of facial appearance in self-concept.

Facial Disfigurement and Self-Concept

Perhaps more so than in the general population, in people with facial disfigurement appearance and self-concept are closely intertwined [34]. Whether congenital or acquired, facial disfigurement can have profound psychosocial implications, including altered body image, reduced quality of life, and poor self-esteem [35-38]. The most frequently reported difficulties relate to negative self-perception and impaired social interaction [39]. While there is not a complete consensus, most research shows that facial disfigurement results in lower self-confidence and a negative self-image that might persist throughout life. Social anxiety, fear of negative social evaluation, and social avoidance are common in those with facial disfigurement [40]. Cleft lip studies have shown that affected children are at greater risk for anxiety, general unhappiness, and self-doubt in interpersonal relationships [41] and that many affected adolescents believe their self-confidence remains affected by their disfigurement [42]. Perhaps most alarmingly, one study showed that the suicide rate among Danish adults with clefts was double that of the unaffected population [43].

Facial disfigurement can impede social interaction in many ways; those affected report challenges meeting new people and making new friends, with resulting difficulty developing long-term relationships [44]. Reactions among family members and peers towards people with disfigurement commonly include teasing, staring, commenting, asking unsolicited questions about the disfigurement, and exhibiting avoidant or negative behavior [45, 46]. Unsurprisingly, these negative interactions can lead to affected persons' preoccupation with their appearance in anticipation of future similar experiences. This preoccupation with appearance can in turn result in self-isolating behaviors that might exacerbate the psychosocial challenges of disfigurement by shrinking affected persons' available social support network. Facial disfigurement might also lead to substance abuse, changes in income or occupational status, and relationship problems [47]. Younger patients seem to adapt better to facial disfigurement, especially if it occurs prior to or during puberty [48]. Adults who become disfigured later in life seem to suffer the most and often express discordance between their "new faces" and "real selves" while remaining acutely conscious of how differently they are perceived by society [49]. Interestingly, while increased self-consciousness and decreased independence are common after facial disfigurement, especially if basic functions like speech and eating are affected, several studies have failed to demonstrate a correlation between age, gender, or severity of disfigurement and psychosocial distress [37, 50-52].

Moving forward, research should continue to identify factors predictive of successful adaptation to facial disfigurement. In facial paralysis, for example, family support, faith,

humor, strong sense of self, social skills, determination, and networking have been identified as protective factors [53]. While there is likely a complex interplay between physical, cultural, and psychosocial factors and successful adaptation to facial disfigurement, deeper understanding of these factors might help guide development of interventions that facilitate adaptation to facial disfigurement.

Corrective Facial Surgery and Self-Concept

Extensive research has evaluated the impact of corrective facial surgery on self-concept. Studies evaluating psychological outcomes of orthognathic surgery, which involves manipulation of the facial skeleton to restore anatomic and functional relationships in patients with dentofacial abnormalities, have shown the desire for improved appearance to be a major consideration for patients seeking such surgery [4]. Several studies report that patients receiving corrective facial surgery display improvements in measures of personality adjustment, such as psychosis or neurosis, as well as improvements in self-concept, self-identity, self-esteem, and self-conflict [4-10].

In facial disfigurement from head or neck malignancies or related interventions, the face plays a central role in an individual's self-concept and path to psychological recovery [54]. Costa et al. described how postsurgical facial disfigurement leads to damaged self-concept and how the repair of self-concept is a lengthy and gradual process [54]. After head or neck cancer surgery, patients must undergo a process of body image reintegration [55], which entails "reorganizing perception of self into a once again acceptable unity" [56]. These findings have been corroborated by multiple groups [57, 58] and translate to other forms of corrective facial surgery. For example, elder patients treated with cleft lip repair report experiencing a restored sense of personal identity [59]. Similarly, orthognathic surgery yields consistent improvements in patient quality of life through restoration of physical facial identity [4, 60, 61].

Nevertheless, aesthetic changes resulting from corrective facial surgery can pose a significant psychological burden, requiring patients to rapidly adapt to new facial features and incorporate them into their self-concept [4]. Patients describe this process as "confusing, frightening, and disorienting" but note that a strong support system can ease the challenge [62]. However, patients undergoing major combined orthognathic and cosmetic procedures report that even close friends and family members initially struggle with adapting to their new appearance [61].

Inherent psychological traits are important in the incorporation of postoperative facial changes into a person's identity. Positive preoperative patient self-concept seems to be a crucial predictor of postoperative patient satisfaction with facial features [63]. Similarly, patients with a realistic—as opposed to an idealized—mental representation of their facial appearance and self-perception are more likely to be satisfied with the results of cosmetic surgery than those with distorted self-perceptions [64]. Studies have

also shown that there is an adaptation period prior to patients' ultimate acceptance of their new facial appearance [65]. Frost et al. describe how patients undergoing orthognathic surgery report temporary depression and loss of self-esteem as they adapt to their new facial appearance [66], but Kiyak et al. report that these alterations in self-esteem and body image stabilize after a period of approximately two years [67]. To shed further light on this topic, outcomes-based research that uses or seeks to develop reliable, validated pre- and postoperative psychosocial assessment tools should continue to be prioritized in future psychosocial studies of conventional facial reconstruction.

Limitations of Conventional Reconstruction for Severe Facial Defects

While surgical correction of certain facial defects like cleft lip is often successful, reconstruction of severe facial defects remains a challenge, as both functional and aesthetic deficits must be addressed to recreate the "normal" face. Notably, functional deficits—particularly impaired verbal and emotional communication—often affect mental well-being more negatively than the aesthetic impairments [68]. In cases of extensive soft-tissue or composite soft-tissue and skeletal defects, conventional reconstruction remains largely unable to restore both facial and aesthetic function, and patients are often left with life-long handicaps [68]. Conventional reparative surgery options include multiple rungs of the reconstructive ladder, such as skin grafts, local flaps, distant pedicled flaps, and free flaps, although all have limitations that can result in incomplete functional restoration and aesthetic outcomes. These limitations are most pronounced for defects involving the most critical components of the face with regard to self-concept: central structures like the eyelids, lips, and nose [69]. These facial subunits and midface structures remain nearly impossible to completely reconstruct. For example, recreating the sphincter-like muscle surrounding the lips is sufficiently challenging to render a functional outcome unlikely; it is often complicated by microstomia, oral incompetence, and suboptimal tissue texture and color [70, 71]. Reconstruction of the nose and adjacent facial subunits can also yield disappointing aesthetic results [71]. In severe cases, anatomical repair might be unachievable, and free flaps are used to obliterate the resulting dead space and to seal nasal and sinus cavities and intracranial space [68].

Facial Transplantation, Self-Concept, and Bioethical Implications

FT offers patients new possibilities of repair for these severe defects. Functional outcomes have been promising, especially considering the impaired pretransplant state of most recipients; sensory recovery is common [72, 73], and motor recovery can restore many "social" facial functions [74] and the ability to breath, eat, drink, and speak intelligibly [75, 76]. Aesthetic outcomes have been equally favorable, albeit to varying degrees, exceeding expectations in many cases. Beginning with the first face transplant in 2005, delicate anatomical structures like the eyelids, nasal unit, and lips have been successfully *replaced*, rather than reconstructed [77, 78].

Nonetheless, over the last decade, various groups have scrutinized and explored the ethical [79-85] and psychosocial [11, 49, 82, 83, 86-88] aspects of FT along with its effect on self-concept. Concerns are rooted in the knowledge that the face plays an essential role in personal identity and self-recognition [11, 49, 82, 83, 87-89] and is a critical mediator of self-expression and interactions with others [82, 90]. Advocating that the face is as an irreplaceable symbolic entity, the Royal College of Surgeons of England [87] and the French National Consultative Ethics Committee for Health and Life Sciences [82] did not initially support FT. A review of all scientific literature related to FT published between 2005 and 2012 found that the majority of articles cited negative "identity change" and resulting psychological effects as the primary concern [11]. Robertson argues that skepticism about FT stems partially from the fact that it involves continuation of the deceased donor in a unique way that does not apply to solid organ donors [84]. The symbolic significance of the face can create an emotionally charged and complicated situation for donor families, who might ultimately refuse donation for this reason [84, 90]. Some virtual studies suggest that donor-to-recipient transfer of facial appearance is minimal in two- [91] and three-dimensional [92] analyses; however, the reproducibility of this result remains uncertain in clinical practice, and ethical obligations towards donors and their families prevent extensive research on the subject.

Another crucial aspect of FT involves ensuring that recipients embrace their new faces. Emotional acceptance of the transplanted face is critical for recipients' whole-body image integration and self-concept adaptation and for avoiding complex psychosocial issues [85, 88, 90]. Acceptance can also lead to greater participation in postoperative care and compliance [82, 90]. Interestingly, recipient personality traits appear to play an important role in acceptance of the transplanted face. FT patients who demonstrate a strong preoperative self-concept seem better equipped to adapt to changes in physical appearance and suffer fewer negative psychosocial consequences than FT patients lacking a strong preoperative self-concept [86, 88]. Proponents of FT argue that for these psychologically prepared recipients, the procedure allows the regaining of their lost identities [89, 90]. Furthermore, facially disfigured patients report that, in pursuit of regaining their personal identity, they would be more willing to accept the risks of immunosuppression and would tolerate greater risk for FT than for kidney transplantation [88].

Nevertheless, the risk-benefit ratio of FT is unique in that, unlike solid organ transplantation (SOT), it does not prolong survival. FT is typically performed only after conventional reconstructive methods are exhausted, with a focus on improving aesthetic, functional, and quality-of-life outcomes. However, like SOT, FT requires lifelong immunosuppression to prevent rejection, which is associated with many adverse effects, including increased risks of malignancy, infection, and metabolic complications. For FT to be ethically acceptable, these risks, along with FT's effects on self-concept and

their psychosocial implications, must be weighed against expected benefits. Indeed, there is widespread acceptance that quality of life of severely disfigured candidates should be considered along with survival [11]. Given the effects of facial disfigurement on patient self-concept and psychosocial well-being and the superior functional and aesthetic outcomes achieved with FT, for select patients, the benefits of the procedure might outweigh the risks.

Despite FT's encouraging early functional and psychological outcomes, ethical concerns about the procedure remain. Understanding of the long-term psychosocial effects of FT is limited [76, 93-96], and additional data are needed to better evaluate the risk-benefit ratio of the procedure. There are also potential issues of consent, given that face transplant recipients are such a vulnerable patient population. Furthermore, while still technically an experimental procedure, FT is unique, from a research ethics perspective, in that "withdrawal" from any trial is essentially impossible. Future research should focus on identifying emotional and psychological factors that correlate with better psychosocial outcomes. Complementing substantial psychological research on the *qualitative* outcomes of FT, recent cognitive neuroscience advances on the neural correlates of self-recognition [97-99] could aid multidisciplinary efforts to better understand how reorganization of brain networks supports self-face recognition and how self-processing supports the gradual development of a new facial identity and its mental representation.

Conclusion

The impact of conventional facial reconstruction on self-concept and its resulting psychosocial effects have been heavily researched, but FT has not been studied in this context in similar depth due to the relative infancy of the field. Facial transplant recipients represent a vulnerable patient population given the significant burden of their pretransplant disfigurements as well as the unique posttransplant psychosocial consequences. While FT raises many ethical considerations, for some patients, it provides an effective reconstructive option that can achieve aesthetic outcomes unattainable through conventional techniques. In their intensive preoperative evaluation and postoperative follow-up, FT teams should focus on identifying suitable candidates and educating them within their available support systems regarding FT's possible impact on self-concept and its psychosocial consequences.

References

1. Baumeister RF, Smart L, Boden JM. Relation of threatened egotism to violence and aggression: the dark side of high self-esteem. In: Baumeister RF, ed. *The Self in Social Psychology*. Philadelphia, PA: Psychology Press; 1999:247.
2. Harter S. *The Construction of the Self: A Developmental Perspective*. New York, NY: Guilford Press; 1999.

3. Grogan S. *Body Image: Understanding Body Dissatisfaction in Men, Women, and Children*. London, England: Routledge; 2008.
4. Cadogan J, Bennun I. Face value: an exploration of the psychological impact of orthognathic surgery. *Br J Oral Maxillofac Surg*. 2011;49(5):376-380.
5. Lazaridou-Terzoudi T, Kiyak HA, Moore R, Athanasiou AE, Melsen B. Long-term assessment of psychologic outcomes of orthognathic surgery. *J Oral Maxillofac Surg*. 2003;61(5):545-552.
6. Flanary CM, Barnwell GM, VanSickels JE, Littlefield JH, Rugh AL. Impact of orthognathic surgery on normal and abnormal personality dimensions: a 2-year follow-up study of 61 patients. *Am J Orthod Dentofacial Orthop*. 1990;98(4):313-322.
7. Yin Z, Wang D, Ma Y, et al. Self-esteem, self-efficacy, and appearance assessment of young female patients undergoing facial cosmetic surgery: a comparative study of the Chinese population. *JAMA Facial Plast Surg*. 2016;18(1):20-26.
8. von Soest T, Kvalem IL, Skolleborg KC, Roald HE. Psychosocial changes after cosmetic surgery: a 5-year follow-up study. *Plast Reconstr Surg*. 2011;128(3):765-772.
9. Imadojemu S, Sarwer DB, Percec I, et al. Influence of surgical and minimally invasive facial cosmetic procedures on psychosocial outcomes: a systematic review. *JAMA Dermatol*. 2013;149(11):1325-1333.
10. Reilly MJ, Tomsic JA, Fernandez SJ, Davison SP. Effect of facial rejuvenation surgery on perceived attractiveness, femininity, and personality. *JAMA Facial Plast Surg*. 2015;17(3):202-207.
11. Kiwanuka H, Bueno EM, Diaz-Siso JR, Sisk GC, Lehmann LS, Pomahac B. Evolution of ethical debate on face transplantation. *Plast Reconstr Surg*. 2013;132(6):1558-1568.
12. Diaz-Siso JR, Bueno EM, Sisk GC, Marty FM, Pomahac B, Tullius SG. Vascularized composite tissue allotransplantation—state of the art. *Clin Transplant*. 2013;27(3):330-337.
13. Siemionow M, Sonmez E. Face as an organ. *Ann Plast Surg*. 2008;61(3):345-352.
14. Greaves MW. Physiology of skin. *J Invest Dermatol*. 1976;67(1):66-69.
15. Jelks GW, Jelks EB. The influence of orbital and eyelid anatomy on the palpebral aperture. *Clin Plast Surg*. 1991;18(1):183-195.
16. Hornung DE. Nasal anatomy and the sense of smell. *Adv Otorhinolaryngol*. 2006;63:1-22.
17. Kawakami T, Ishihara M, Mihara M. Distribution density of intraepidermal nerve fibers in normal human skin. *J Dermatol*. 2001;28(2):63-70.
18. Connor NP, Abbs JH. Orofacial proprioception: analyses of cutaneous mechanoreceptor population properties using artificial neural networks. *J Commun Disord*. 1998;31(6):535-542, 553.

19. Johansson O, Wang L, Hilliges M, Liang Y. Intraepidermal nerves in human skin: PGP 9.5 immunohistochemistry with special reference to the nerve density in skin from different body regions. *J Peripher Nerv Syst*. 1999;4(1):43-52.
20. Schulze E, Witt M, Fink T, Hofer A, Funk RH. Immunohistochemical detection of human skin nerve fibers. *Acta Histochem*. 1997;99(3):301-309.
21. Bailey LW, Edwards D. Psychological considerations in maxillofacial prosthetics. *J Prosthet Dent*. 1975;34(5):533-538.
22. Allport GW. *Becoming: Basic Considerations for Becoming a Person*. New Haven, CT: Yale University Press; 1955.
23. Zebrowitz L. *Reading Faces: Window to the Soul?* Boulder, CO: Westview Press; 1997.
24. Zebrowitz L, McDonald S. The impace of litigants' baby-facedness and attractiveness on adjudications in small claims courts. *Law Hum Behav*. 1991;15(6):603-623.
25. Eberhardt JL, Davies PG, Purdie-Vaughns VJ, Johnson SL. Looking deathworthy: perceived stereotypicality of black defendants predicts capital-sentencing outcomes. *Psychol Sci*. 2006;17(5):383-386.
26. Todorov A, Mandisodza AN, Goren A, Hall CC. Inferences of competence from faces predict election outcomes. *Science*. 2005;308(5728):1623-1626.
27. Jones AL, Kramer SS. Facial cosmetics have little effect on attractiveness judgments compared with identity. *Perception*. 2015;44(1):79-86.
28. Samson N, Fink B, Matts PJ. Visible skin condition and perception of human facial appearance. *Int J Cosmet Sci*. 2010;32(3):167-184.
29. Zebrowitz LA, Montepare JM. Social psychological face perception: why appearance matters. *Soc Personal Psychol Compass*. 2008;2(3):1497. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2811283/. Accessed March 1, 2018.
30. Langlois JH, Kalakanis L, Rubenstein AJ, Larson A, Hallam M, Smoot M. Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychol Bull*. 2000;126(3):390-423.
31. Bashour M. History and current concepts in the analysis of facial attractiveness. *Plast Reconstr Surg*. 2006;118(3):741-756.
32. Berscheid E, Gangestad S. The social psychological implications of facial physical attractiveness. *Clin Plast Surg*. 1982;9(3):289-296.
33. Little AC, Jones BC, DeBruine LM. Facial attractiveness: evolutionary based research. *Philos Trans R Soc Lond B Biol Sci*. 2011;366(1571):1638-1659.
34. Kent G, Thompson A. The development and maintenance of shame in disfigurement: implications for treatment. In: Gilbert P, Miles J, eds. *Body Shame: Conceptualisation, Research and Treatment*. Hove, East Sussex, England: Brunner-Routledge; 2002:103-116.

35. Rumsey N, Clarke A, White P, Wyn-Williams M, Garlick W. Altered body image: appearance-related concerns of people with visible disfigurement. *J Adv Nurs*. 2004;48(5):443-453.
36. Rumsey N, Clarke A, Musa M. Altered body image: the psychosocial needs of patients. *Br J Community Nurs*. 2002;7(11):563-566.
37. Rumsey N, Clarke A, White P. Exploring the psychosocial concerns of outpatients with disfiguring conditions. *J Wound Care*. 2003;12(7):247-252.
38. Broder H, Strauss RP. Self-concept of early primary school age children with visible or invisible defects. *Cleft Palate J*. 1989;26(2):114-118.
39. Crerand CE, Sarwer DB, Kazak AE, Clarke A, Rumsey N. Body image and quality of life in adolescents with craniofacial conditions. *Cleft Palate Craniofac J*. 2017;54(1):2-12.
40. Rumsey N, Harcourt D. Body image and disfigurement: issues and interventions. *Body Image*. 2004;1(1):83-97.
41. Millard T, Richman LC. Different cleft conditions, facial appearance, and speech: relationship to psychological variables. *Cleft Palate Craniofac J*. 2001;38(1):68-75.
42. Turner SR, Thomas PW, Dowell T, Rumsey N, Sandy JR. Psychological outcomes amongst cleft patients and their families. *Br J Plast Surg*. 1997;50(1):1-9.
43. Herskind A, Christensen K, Juel K, Fogh-Anderson P. Cleft lip: a risk factor for suicide. Paper presented at: 7th International Congress on Cleft Palate and Related Craniofacial Anomalies; November 2, 1993; Broadbeach, Queensland, Australia.
44. Robinson E. Pyschological research on visible differences in adults. In: Lansdown R, Rumsey N, Bradbury E, Carr A, Partridge J, eds. *Visibly Different: Coping with Disfigurement*. Oxford, England: Butterworth-Heinemann; 1997:102-111.
45. Rumsey N. Body image and congenital conditions with visible differences. In: Cash T, Pruzinsky T, eds. *Body Image: A Handbook of Theory, Research and Clinical Practice*. New York, NY: Guilford; 2002:226-233.
46. Rumsey N. Optimizing body image in disfiguring congenital conditions. In: Cash T, Pruzinsky T, editors. *Body Image: A Handbook of Theory, Research, and Clinical Practice*. New York, NY: Guilford; 2002:431-439.
47. Rozen RD, Ordway DE, Curtis TA, Cantor R. Psychosocial aspects of maxillofacial rehabilitation. I. The effect of primary cancer treatment. *J Prosthet Dent*. 1972;28(4):423-428.
48. Knorr NJ, Hoopes JE, Edgerton MT. Psychiatric-surgical approach to adolescent disturbance in self image. *Plast Reconstr Surg*. 1968;41(3):248-253.
49. Rumsey N. Psychological aspects of face transplantation: read the small print carefully. *Am J Bioeth*. 2004;4(3):22-25.
50. Fingeret MC, Yuan Y, Urbauer D, Weston J, Nipomnick S, Weber R. The nature and extent of body image concerns among surgically treated patients with head and neck cancer. *Psychooncology*. 2012;21(8):836-844.

51. Fingeret MC, Vidrine DJ, Reece GP, Gillenwater AM, Gritz ER. Multidimensional analysis of body image concerns among newly diagnosed patients with oral cavity cancer. *Head Neck*. 2010;32(3):301-309.
52. Katz MR, Irish JC, Devins GM, Rodin GM, Gullane PJ. Psychosocial adjustment in head and neck cancer: the impact of disfigurement, gender and social support. *Head Neck*. 2003;25(2):103-112.
53. Meyerson MD. Resiliency and success in adults with Moebius syndrome. *Cleft Palate Craniofac J*. 2001;38(3):231-235.
54. Costa EF, Nogueira TE, de Souza Lima NC, Mendonça EF, Leles CR. A qualitative study of the dimensions of patients' perceptions of facial disfigurement after head and neck cancer surgery. *Spec Care Dentist*. 2014;34(3):114-121.
55. Dropkin MJ. Body image and quality of life after head and neck cancer surgery. *Cancer Pract*. 1999;7(6):309-313.
56. Callahan C. Facial disfigurement and sense of self in head and neck cancer. *Soc Work Health Care*. 2004;40(2):77.
57. Roing M, Hirsch JM, Holmstrom I, Schuster M. Making new meanings of being in the world after treatment for oral cancer. *Qual Health Res*. 2009;19(8):1076-1086.
58. O'Brien K, Roe B, Low C, Deyn L, Rogers SN. An exploration of the perceived changes in intimacy of patients' relationships following head and neck cancer. *J Clin Nurs*. 2012;21(17-18):2499-2508.
59. Khalil W, da Silva HL, Serafim KT, Volpato LE, Casela LF, Aranha AM. Recovering the personal identity of an elderly patient with cleft lip: a case report. *Spec Care Dentist*. 2012;32(5):218-222.
60. Hunt OT, Johnston CD, Hepper PG, Burden DJ. The psychosocial impact of orthognathic surgery: a systematic review. *Am J Orthod Dentofacial Orthop*. 2001;120(5):490-497.
61. Guzel MZ, Sarac M, Arslan H, Nejat E, Nazan K. A new face by combined surgery for patients with complex dentofacial deformity. *Aesthetic Plast Surg*. 2007;31(1):32-41.
62. Cadogan, Bennun, 379.
63. van Steenbergen E, Litt MD, Nanda R. Presurgical satisfaction with facial appearance in orthognathic surgery patients. *Am J Orthod Dentofacial Orthop*. 1996;109(6):653-659.
64. Slavin B, Beer J. Facial identity and self-perception: an examination of psychosocial outcomes in cosmetic surgery patients. *J Drugs Dermatol*. 2017;16(6):617-620.
65. Brodsky L. Identity change as a consequence of oral surgery. *Aesthetic Plast Surg*. 1978;2(1):303-310.
66. Frost V, Peterson G. Psychological aspects of orthognathic surgery: how people respond to facial change. *Oral Surg Oral Med Oral Pathol*. 1991;71(5):538-542.

67. Kiyak HA, Hohl T, West RA, McNeill RW. Psychologic changes in orthognathic surgery patients: a 24-month follow up. *J Oral Maxillofac Surg*. 1984;42(8):506-512.
68. Pomahac B, Nowinski D, Diaz-Siso JR, et al. Face transplantation. *Curr Probl Surg*. 2011;48(5):293-357.
69. Hui-Chou HG, Nam AJ, Rodriguez ED. Clinical facial composite tissue allotransplantation: a review of the first four global experiences and future implications. *Plast Reconstr Surg*. 2010;125(2):538-546.
70. Cordeiro PG, Santamaria E. Primary reconstruction of complex midfacial defects with combined lip-switch procedures and free flaps. *Plast Reconstr Surg*. 1999;103(7):1850-1856.
71. Furuta S, Sakaguchi Y, Iwasawa M, Kurita H, Minemura T. Reconstruction of the lips, oral commissure, and full-thickness cheek with a composite radial forearm palmaris longus free flap. *Ann Plast Surg*. 1994;33(5):544-547.
72. Pomahac B, Pribaz J, Eriksson E, et al. Restoration of facial form and function after severe disfigurement from burn injury by a composite facial allograft. *Am J Transplant*. 2011;11(2):386-393.
73. Devauchelle B, Badet L, Lengele B, et al. First human face allograft: early report. *Lancet*. 2006;368(9531):203-209.
74. Siemionow M. The decade of face transplant outcomes. *J Mater Sci Mater Med*. 2017;28(5):64. doi:10.1007/s10856-017-5873-z.
75. Siemionow M, Papay F, Alam D, et al. Near-total human face transplantation for a severely disfigured patient in the USA. *Lancet*. 2009;374(9685):203-209.
76. Khalifian S, Brazio PS, Mohan R, et al. Facial transplantation: the first 9 years. *Lancet*. 2014;384(9960):2153-2163.
77. Dorafshar AH, Bojovic B, Christy MR, et al. Total face, double jaw, and tongue transplantation: an evolutionary concept. *Plast Reconstr Surg*. 2013;131(2):241-251.
78. Sosin M, Ceradini DJ, Levine JP, et al. Total face, eyelids, ears, scalp, and skeletal subunit transplant: a reconstructive solution for the full face and total scalp burn. *Plast Reconstr Surg*. 2016;138(1):205-219.
79. Agich GJ, Siemionow M. Facing the ethical questions in facial transplantation. *Am J Bioeth*. 2004;4(3):25-27.
80. Agich GJ, Siemionow M. Until they have faces: the ethics of facial allograft transplantation. *J Med Ethics*. 2005;31(12):707-709.
81. Baylis F. A face is not just like a hand: pace Barker. *Am J Bioeth*. 2004;4(3):30-32.
82. Canto-Sperber M, Deschamps C, Dien, MJ, Michaud J, Pellerin D; National Consultative Ethics Committee for Health and Life Sciences. Opinion no. 82: composite tissue allotransplantation (CTA) of the face (full or partial facial transplant). http://www.ccne-ethique.fr/sites/default/files/publications/avis082en.pdf. Published February 6, 2004. Accessed February 22, 2018.

83. Morris P, Bradley A, Doyal L, et al. Face transplantation: a review of the technical, immunological, psychological and clinical issues with recommendations for good practice. *Transplantation*. 2007;83(2):109-128.
84. Robertson JA. Face transplants: enriching the debate. *Am J Bioeth*. 2004;4(3):32-33.
85. Wiggins OP, Barker JH, Martinez S, et al. On the ethics of facial transplantation research. *Am J Bioeth*. 2004;4(3):1-12.
86. Furr LA, Wiggins O, Cunningham M, et al. Psychosocial implications of disfigurement and the future of human face transplantation. *Plast Reconstr Surg*. 2007;120(2):559-565.
87. Morris PJ, Bradley JA, Doyal L, et al. Facial transplantation: a working party report from the Royal College of Surgeons of England. *Transplantation*. 2004;77(3):330-338.
88. Soni CV, Barker JH, Pushpakumar SB, et al. Psychosocial considerations in facial transplantation. *Burns*. 2010;36(7):959-964.
89. Siemionow M, Agaoglu G. The issue of "facial appearance and identity transfer" after mock transplantation: a cadaver study in preparation for facial allograft transplantation in humans. *J Reconstr Microsurg*. 2006;22(5):329-334.
90. Swindell JS. Facial allograft transplantation, personal identity and subjectivity. *J Med Ethics*. 2007;33(8):449-453.
91. Pomahac B, Aflaki P, Nelson C, Balas B. Evaluation of appearance transfer and persistence in central face transplantation: a computer simulation analysis. *J Plast Reconstr Aesthet Surg*. 2010;63(5):733-738.
92. Chandawarkar AA, Diaz-Siso JR, Bueno EM, et al. Facial appearance transfer and persistence after three-dimensional virtual face transplantation. *Plast Reconstr Surg*. 2013;132(4):957-966.
93. Petruzzo P, Testelin S, Kanitakis J, et al. First human face transplantation: 5 years outcomes. *Transplantation*. 2012;93(2):236-240.
94. Roche NA, Blondeel PN, Vermeersch HF, et al. Long-term multifunctional outcome and risks of face vascularized composite allotransplantation. *J Craniofac Surg*. 2015;26(7):2038-2046.
95. Chang G, Pomahac B. Psychosocial changes 6 months after face transplantation. *Psychosomatics*. 2013;54(4):367-371.
96. Lantieri L, Grimbert P, Ortonne N, et al. Face transplant: long-term follow-up and results of a prospective open study. *Lancet*. 2016;388(10052):1398-1407.
97. Devue C, Brédart S. The neural correlates of visual self-recognition. *Conscious Cogn*. 2011;20(1):40-51.
98. Apps MA, Tajadura-Jiménez A, Sereno M, Blanke O, Tsakiris M. Plasticity in unimodal and multimodal brain areas reflects multisensory changes in self-face identification. *Cereb Cortex*. 2015;25(1):46-55.

99. Apps MA, Tajadura-Jiménez A, Turley G, Tsakiris M. The different faces of one's self: an fMRI study into the recognition of current and past self-facial appearances. *Neuroimage*. 2012;63(3):1720-1729.

William J. Rifkin is a predoctoral research fellow in the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City, where he is also pursuing his medical degree. His research interests include vascularized composite allotransplantation, facial transplantation, microsurgery, wound healing, and transplantation immunology.

Rami S. Kantar, MD, is a surgery resident and current postdoctoral research fellow in the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City. He is interested in academic and outreach craniofacial reconstructive plastic surgery.

Safi Ali-Khan earned his undergraduate degree in Romance languages from New York University and is now completing his MD at NYU School of Medicine in New York City. His professional interests include plastic and craniofacial surgery, with a special focus on pediatric and transgender populations, as well as medical ethics and the relationships between medicine and identity.

Natalie M. Plana completed her undergraduate studies with a major in natural sciences at Fordham University and is currently pursuing her MD at NYU School of Medicine in New York City. She is also a predoctoral research fellow at the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health, focusing her efforts on facial transplantation, craniofacial surgery, academic issues in medicine, and surgical education and simulation.

J. Rodrigo Diaz-Siso, MD, is a postdoctoral research fellow in the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City. Dr. Diaz-Siso's clinical interests include craniofacial surgery, microsurgery, and general reconstructive surgery, and his research interests include vascularized composite allotransplantation, facial transplantation, and surgical education.

Manos Tsakiris, PhD, MSc, is a professor of psychology at Royal Holloway, University of London. His interdisciplinary research, based on neuroscientific and psychological experimental paradigms as well as on neurophilosophical approaches to selfhood, focuses on empirically identifying the basic neurocognitive principles governing the sense of agency and body-ownership and the interaction between them.

Eduardo D. Rodriguez, MD, DDS, is the Helen L. Kimmel Professor of Reconstructive Plastic Surgery and chair of the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City. He has performed two full-face and scalp

transplantations to date, and his research interests include the technical refinements of facial transplantation as well as ethical aspects of the procedure.

William J. Rifkin and Rami S. Kantar contributed equally to this work.

Related in the *AMA Journal of Ethics*

Ethical Issues in Face Transplantation, May 2010
The Ethics of Face Transplantation, September 2005
Plastic Surgery's Contributions to Surgical Ethics, April 2018

ISSN 2376-6980

AMA Journal of Ethics®
April 2018, Volume 20, Number 4: 324-327

FROM THE EDITOR

Ethics and Plastic Surgery's Legacy of Transforming Impossibility into Innovation

Paul Cederna, then-president of the Plastic Surgery Foundation, began his 2017 address at the American Society of Plastic Surgeons (ASPS) annual meeting by stating that plastic surgeons' "goal is to give back what was lost—we strive to do the impossible. And many times we achieve that goal" [1]. As members of a diverse specialty that does not claim particular disease processes or areas of the body, plastic surgeons—from Harold Gillies's use of staged reconstruction to restore the faces of veterans, to Nobel laureate Joseph Murray's completing the first successful human kidney transplant, to the advent of hand transplantation [2, 3]—have historically defied what was thought to be surgically impossible. In addition to surgical techniques, plastic surgeons like Donald Laub have challenged the role of the surgeon beyond the local operating room—in Laub's case, by creating Interplast™, a pioneering global surgery program providing reconstructive surgical care to patients in Latin America and Asia [4]. Recently, plastic surgeons have lead physician presence on social media for the purposes of both advertising and professional networking. Plastic surgery is often on the leading edge of what is expected of surgeons, both inside and outside of the operating room.

For this reason, plastic surgery was the subject of the *AMA Journal of Ethics* 2010 theme issue, "Ethics in Cosmetic and Reconstructive Plastic Surgery." This issue covered advertising, the ethics of aesthetic surgery, and face transplantation. Given the advances in both aesthetic and reconstructive surgery, as well as the changing ways plastic surgeons interact with patients and society, the current theme issue, "Ethical Considerations in Plastic and Reconstructive Surgery," aims to examine novel ideas and issues that have evolved over the past eight years since the flagship issue, such as the role of the surgical resident in patient care, the use of social media in advertising, and the establishment of aesthetic norms.

As a specialty known for being "the surgeon's surgeon," given plastic surgery's collaborative role in cases across surgical specialties, I wanted to address issues that are pertinent to any academic surgeon—namely, the role of the learner within the operating room. Two cases in this issue address this familiar relationship, which can often cause conflict between the physician and the patient. Michael J. Kirsch and Steven J. Kasten discuss how to properly disclose trainee participation during the informed consent process in a case in which a patient is coerced into agreeing to the resident surgeon's involvement. Responding to a case of a surgical complication, Jean-Nicolas Gallant and

Alexander Langerman argue that advance planning, better communication, and proper informed consent are key to ethically and effectively running two operating rooms with the help of learners. And Chad M. Teven and Scott B. Grant, the previous guest editor for "Ethics in Cosmetic and Reconstructive Plastic Surgery," write about plastic surgery ethics and its place in the broader field of surgical and medical ethics.

Ethically problematic social media presence for the purposes of both self-promotion and advertising on sites such as Twitter, Snapchat, and Instagram has been an area of concern, prompting guidance from academics [5] as well as the ASPS [6]. Through discussion of a case of a patient who consented to sharing images of her operative case on social media but feels that her surgical experience was disrespected, Katelyn G. Bennett and Christian J. Vercler review the existing guidelines on the professional and ethical use of patient images on social media and the downsides of "medutainment." Using the framework of *institutional betrayal*, Carly P. Smith and Daniel George explore the possible harms to patients of plastic surgeons' promotion of nonevidence-based aesthetic procedures, such as the Vampire Facelift®, and how these can be avoided by educating patients through social media.

Beyond social media and plastic surgery, this issue aims to explore the meaning of aesthetic in the context of women's recovery from breast cancer and the specialty's unique role in simultaneously contributing to the "beauty" of healing from illness and in defining what is anatomically "normal." Inspired by the recent *Journal of the American Medical Association* (*JAMA*) article about tattooing following breast reconstruction [7], I invited Lisa Franczak, owner and artist at Rose Red Tattoos, to reflect on her experience providing areola restoration and camouflage tattoos to survivors of breast cancer. From a physician's perspective, Jeffery H. Kozlow argues that though plastic surgeons should be aware of and refer for camouflage tattooing, they should only perform breast reconstructive procedures that aim at restoring the patient's premastectomy anatomy. Devan Stahl and Vercler take a historical approach to argue that plastic surgeons' use of patient images and videos on Snapchat exploits their patients by sexualizing and objectifying their bodies, even if patients give consent. Finally, William J. Rifkin, Rami S. Kantar, Safi Ali-Khan, Natalie M. Plana, J. Rodrigo Diaz-Siso, Manos Tsakiris, and Eduardo D. Rodriguez examine the psychosocial effects of facial reconstruction and facial transplantation.

Two other articles discuss regulations related to advertising and accessing plastic surgery. Pablo L. Gutierrez and Debra J. Johnson discuss current, sometimes unethical, cosmetic marketing practices and the American College of Plastic Surgeons guidelines for the use of patient images. And William M. Kuzon, Emily Sluiter, and Katherine M. Gast argue that veterans' inability to access gender-affirming surgery through the Veterans Health Administration denies medically necessary gender-affirming care to a minority population and reinforces the discrimination facing transgender people.

The plastic surgeon on television is popularly portrayed as a high-status cosmetic physician catering to the rich and famous, which is far from the daily care most plastic surgeons provide. Although this stereotype is challenged throughout the issue, it is the particular focus of the podcast. Shane Morrison discusses the concept of "surgical justice" [8] and ways this idea has informed his career and his research in gender-affirming surgery. And Cedar Neary provides a patient perspective on barriers to gender-affirming surgery and reflects on how his view of surgical justice has been shaped by his dual experience as a patient and medical student.

In the words of the sixteenth-century Italian surgeon, Gaspare Tagliacozzi, plastic surgeons "restore, rebuild, and make whole those parts which nature hath given, but which fortune has taken away. Not so much that it may delight the eye, but that it might buoy up the spirit, and help the mind of the afflicted" [9]. From #PlasticSurgery to face transplantation, plastic surgeons continue to honor this quotation from the father of plastic surgery and to occupy their historic place as leaders in surgical innovation. As a specialty constantly on the edge of the impossible, continually revisiting the ethics of procedures and practices within the field is necessary. Plastic surgery is a diverse specialty, and the aim of this issue is to provide a timely discussion of topics that are specialty specific as well as those that have implications for surgery and society more generally, including the use of social media, learners in the operating room, and aesthetics.

References

1. Opening ceremonies and welcome reception. 86th Annual Meeting of the American Society of Plastic Surgeons; October 6-10, 2017; Orlando, FL.
2. Hultman CS, Friedstat JS. The ACAPS and SESPRS surveys to identify the most influential innovators and innovations in plastic surgery: no line on the horizon. *Ann Plast Surg*. 2014;72(6):S202-S207.
3. Welman T, Villani V, Shanmugarajah S, Hettiaratchy S. From kidney transplants to vascularized composite allografts: the role of the plastic surgeon in transplantation. *Vascular Compos Allotransplantation*. 2015;2(4):71-74.
4. Resurge International. Our history. http://www.resurge.org/about_us/history_formerly_interplast.cfm. Accessed November 21, 2017.
5. Dorfman RG, Vaca EE, Fine NA, Schierle CF. The ethics of sharing plastic surgery videos on social media. *Plast Reconstr Surg*. 2017;140(4):825-836.
6. American Society of Plastic Surgeons. Code of ethics of the American Society of Plastic Surgeons. https://www.plasticsurgery.org/documents/Governance/asps-code-of-ethics.pdf. Updated September 25, 2017. Accessed November 21, 2017.

7. Allen D. Moving the needle on recovery from breast cancer: the healing role of postmastectomy tattoos. *JAMA*. 2017;317(7):672-674.
8. Morrison SD, Swanson JW. Surgical justice. *Plast Reconstr Surg*. 2015; 136(2):291e-292e.
9. Tagliacozzi G. *De Curtorum Chirurgia per Insitionem*. Thomas JH, trans. New York, NY: Classics of Medicine Library; 1996.

Megan Lane
MS-4
University of Michigan Medical School
Ann Arbor, Michigan

Acknowledgements
I would like to thank Drs. Christian Vercler and William Kuzon for their continued research support and career mentorship, as well as the entire the faculty of the University of Michigan's Section of Plastic Surgery for their support of this issue.

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 328-335

ETHICS CASE

When Is Posting about Patients on Social Media Unethical "Medutainment"?

Commentary by Katelyn G. Bennett, MD, and Christian J. Vercler, MD, MA

Abstract

Social media is characterized by online spaces for rapid communication, advertising, professional development, and advocacy, and these platforms have revolutionized the way we interact with people and our culture. In plastic surgery, platforms like Facebook, Snapchat, and Instagram are especially attractive for practice promotion and instantaneous connection with potential patients. However, considerable risks and ethical dilemmas lie in wait for the plastic surgeon who attempts to use patient photographs and videos for advertising. It is critical for plastic surgeons who use patient images for this purpose to facilitate fully informed consent, consider both context of use and the patient-physician power differential, and put patients' interests ahead of their own.

Case

After ten years of back pain and difficulty finding properly fitting clothing, Alexis decides to begin researching breast reduction. She looks over hundreds of photos on Instagram and follows surgeons on Snapchat. After completing her online investigations, Alexis schedules a consultation with Dr. Mayer, who has 10,000 social media followers, to discuss her breast reduction surgery.

On the day of her surgery, Dr. Mayer revisits the risks and benefits of breast reduction, which he also discussed with Alexis during her clinic visits. Dr. Mayer also asks Alexis if he can take pictures of her intraoperative course to post on his social media accounts. He explains, "These accounts are for education. Many medical students and patients follow me on social media to learn more about breast reduction and reconstruction." With the understanding that these social media platforms are for education, Alexis offers verbal and written consent to the procedure and to have pictures of the surgery uploaded afterwards.

During the surgery, Dr. Mayer has one of the operating room nurses, Maya, begin taking photos and videos for his Snapchat account. Dr. Mayer announces, "Today I am doing a breast reduction on a nice young lady," while Maya films. When Dr. Mayer begins to remove Alexis's excess breast tissue, he asks for Maya to turn the camera on again.

Holding up the tissue with two hands, he says, "Look at how much extra breast tissue you might be carrying around." Maya puts the camera down. "You aren't going to post that, right?" she says. Dr. Mayer pauses. "Why not? It will be deidentified. Future patients want to know what this looks like." Maya leaves the video on Dr. Mayer's camera and Alexis's surgery continues.

After Alexis's operation, Dr. Mayer visits her in the recovery area and tells her the procedure went well. She goes home later that day. In the evening, she checks Snapchat on her cell phone to see if videos from her surgery were posted, and she sees Dr. Mayer's Snapchat story and opens it. She views the video and is shocked and upset.

Two weeks later during her postoperative visit with Dr. Mayer, she is told her incision sites are healing well. Toward the end of the visit, Dr. Mayer notices that Alexis is struggling to hold back tears. "What's wrong?" he asks her. "I couldn't believe that you posted that video of my surgery on Snapchat. You hold up my breast tissue for the world to see and call that education?" Dr. Mayer is surprised by her reaction. "You gave consent for me to use images from your surgery on social media," he offered. "Yes, but I assumed you'd treat my experience with respect," she answers. Unsure how to respond to Alexis's reaction, Dr. Mayer wonders what to do.

Commentary

Like many plastic surgeons [1], Dr. Mayer uses patient images on social media to promote his practice, and he obtains verbal and written consent to do so. Plastic surgeons often post pre- and postoperative photographs on social media platforms like Snapchat and Instagram, and live intraoperative videos are sometimes posted as well [2]. For plastic surgeons, social media functions as a form of free advertising, which is incredibly useful for cosmetic surgeons [1]. But what's the big deal? Those familiar with Dr. Miami and his squad's Snapchat posts [3] would not recognize Dr. Mayer's actions as unusual or particularly offensive or upsetting. Indeed, the content of some surgeons' "snaps" might be posted with the intention of being attention-grabbing and jocular [2]. However, some patients, like the one in this case, might view them differently and find them upsetting.

Given the patient's response, Dr. Mayer should be quick to apologize and remove the video from his Snapchat account, if possible. Unfortunately, once posted, the video is permanently out of his control. He might be able to delete or hide the post, but the content is never truly eliminated from cyberspace [4]. As a result, there is little he can do for this particular patient beyond offering a sincere apology.

There are two issues at play here. The first is that the patient in this case clearly did not understand what she was consenting to when she gave Dr. Mayer permission to use intraoperative photos of her body on his social media account. The remedy could be as

easy as implementing a more thorough and robust informed consent process in the future. We argue, however, that there are some aspects of the sensationalist use of patient images on social media platforms that render consent necessary but insufficient for ethical and professional behavior. Changing his social media practices for future patients is imperative, and sharing his specific plans for change with Alexis could help her to feel like she is making a difference and thus ease the tension. These changes must include: (1) fully informed consent, (2) a commitment to professional content, and (3) avoidance of abusing the patient-physician power differential. First, however, we will cover the necessary ground rules.

Basic Guidelines for Using Patient Images on Social Media

While Dr. Mayer likely knew some basic guidelines, using patient images and interacting with patients on social media requires complete adherence to the Health Insurance Portability and Accountability Act (HIPAA), maintenance of separate private and personal social media accounts, minimal online interactions with patients, and familiarity with hospital policies on social media. Patient confidentiality must be protected at all times, as HIPAA's security rule protecting identifiable health information that a provider creates, receives, maintains, or transmits electronically applies to social media as well [5, 6]. Accordingly, posted information should be deidentified, although seemingly deidentified content can often be traced back to specific patients if situations are sufficiently unique. For example, posting "deidentified" information about your experience caring for a patient hit by a train—an accident covered in depth by local news crews—could be easily traced back to the patient. It is also recommended by some authors that surgeons maintain separate personal and professional accounts and communicate with patients only through the latter [4, 7, 8]. Going one step further, plastic surgeons should minimize interactions with patients online [6, 7], especially if patients inquire about the appropriateness of surgical procedures for their situation. Online communication cannot substitute for the patient-physician encounter, and failing to adhere to this principle can have serious ramifications [6]. If surgeons' posts entail detailed descriptions of procedures and associated indications, it is critically important for the posts to encourage patients to seek a consultation and to clarify that patients must not assume the information provided directly applies to them [4]. Finally, plastic surgeons must be familiar with institutional or hospital policies governing social media use and strictly adhere to them [9].

Ensuring Informed Consent for Patient Image Use on Social Media

While Dr. Mayer appeared to understand the basic guidelines of social media use, his consent process was clearly deficient. However, it should be noted that full disclosure of social media risks for plastic surgery patients has not been performed in a standardized fashion. To address this gap, the Social Media Task Force of the American Society of Plastic Surgeons (ASPS) has been charged with developing a preoperative consent process specific to social media [10, 11]. Patients must understand that once

photographs, videos, or blog posts are online, they are irrevocable [4, 6, 12]. Surgeons also have no control over posted content, and the information can be disseminated at will to infinitely large and unintended audiences [9, 13]. Additionally, many unintended viewers are exceedingly young and immature. Almost a quarter of Snapchat users are teens [14], and more than half of Instagram users fall between the ages of 18 and 25 [15]. This demographic is largely incapable of processing or appraising publicly available patient photographs as a plastic surgeon could while reading an academic journal, and patients should exhibit understanding of this reality before consenting, especially if the surgeon's social media account is not private. Additionally, if Dr. Mayer and other plastic surgeons are prudent, they will provide patients with the opportunity to view any photographs or videos prior to posting them online. Some medical journals require that authors give patients the opportunity to view photographs being published in a scientific article [16]. How much more should we offer this recourse to patients when photographs of their faces, breasts, or genitalia are being considered for a Snapchat post? Furthermore, obtaining consent for the use of patient photos on social media at the same time as obtaining consent for an operation is problematic. It conflates the trust the patient has in the surgeon to perform the clinically appropriate operation with the trust that the surgeon will do the right thing with the patient's images. It also implies a *quid pro quo* that could put the patient in a position in which she does not want to dissent for fear that she is not living up to her end of the implicit "bargain," wherein performance of the surgery merits a return from the patient via consenting to social media posts.

Avoiding "Medutainment"

Beyond facilitating fully informed consent, the real challenge lies in clarifying what defines a post as unprofessional, which goes beyond the consideration of what is legal. While Supreme Court Justice Potter Stewart famously said, "I know it when I see it," when referring to the ease of identifying pornography [17], identifying inappropriate social media content is not obvious to some. While many plastic surgeons post photographs and videos in a legally compliant fashion by obtaining written consent beforehand, the nature of the post might still fail to reflect well on the profession and the surgeon and fail to honor the patient-physician relationship above all else. It is critical to recognize that using the patient-physician relationship as a source of entertainment by which to increase notoriety or attract patients utterly demeans the surgeon's protective duty toward the patient. This phenomenon, often disguised as efforts to educate the public, can be referred to as "medutainment" [18].

Unfortunately, the public often fails to demonstrate adequate understanding of what plastic surgeons actually do, with emergency room patients ranking plastic surgery last out of 30 specialties regarding importance in caring for inpatients [19]. With such a poor public image of plastic surgery, we should care deeply that some online content posted by plastic surgeons could approximate pornography. Such social media engagement undermines the professional reputation of plastic surgery, and both individual plastic

surgeons and plastic surgery societies should actively discourage such behavior. Also, as members of a profession, we automatically submit ourselves to a higher standard of behavior and a more stringent ethical code, and, as such, our social media engagement should reflect this standard. Regardless of the potential outcry over First Amendment rights, common sense limitations on what we say and do as professionals benefits us and our patients and must extend beyond legality.

When considering social media use in plastic surgery and the avoidance of "medutainment," context carries considerable weight as well. Even a well-intentioned surgeon posting photos of breasts and genitalia on social media must consider that the interpretation of such photos is largely contingent on context. Images of an infant breastfeeding and images of breasts in an art gallery, on a surgeon's Snapchat account, in a plastic surgery journal, or on a pornography website are all imbued with different meaning—nourishment, art, advertising, object of knowledge, and object of desire, respectively. Society often sexualizes the body depending on context, and social media is certainly one of those contexts whereas a journal article is not. Clinicians must necessarily adapt content for media wherein sexualization is more likely to occur due to either the audience's interpretation or social norms that permit such sexualization. Photographs or videos of breasts and genitalia should only be posted if they conform to well-known clinical standards [20] and if consent has been obtained with full disclosure of all the aforementioned risks.

Most importantly, Dr. Mayer's post and those of thousands of other plastic surgeons fail to prioritize the interests of the patient. Alexis felt that the manner in which he handled her tissue in front of a camera lacked dignity and respect. The purpose of the video was clearly to "medutain," sensationalizing the procedure for his audience and promoting his practice. These goals were pursued at the expense of the patient—she felt that her surgical experience was trivialized and that her bodily integrity was violated in a public forum. While removing breast tissue is a daily or weekly occurrence for some plastic surgeons, it can be one of the most important days of a patient's life, and exploiting the patient's vulnerability on such an occasion is an abuse of the patient's trust.

Given the current advertising and entertainment culture, real pressure exists to create a culture of transparency to attract cosmetic patients. Patients considering aesthetic surgery want to know the procedures plastic surgeons are performing, the inner workings of the operating room, and what their surgeons are like outside the office. In our experience, meeting this desire can result in attempts by plastic surgeons to deliver material that is titillating, provocative, and easily interpreted by some as pornographic, possibly to fill empty seats in their waiting rooms and pay the overhead. If we promote any and all methods of advertising without carefully considering sensible standards, *caveat emptor* easily overrides *primum non nocere* in our daily practice.

Recalling the Patient-Physician Power Differential

Finally, it is critical to consider the extant impact of the patient-physician power differential on patient consent. Henry K. Beecher, an anesthesiologist and medical ethicist, believed that most patients will do almost anything physicians ask of them out of genuine trust [21]. Given that posting patient photographs or videos on social media is (physically) painless and can promote the practice of an affable physician, it is probable that even hesitant patients would provide consent. Fully informed consent enumerating all risks, in addition to reassuring patients that their care will be unaffected should they decline, is imperative for minimizing the effect of this power differential. Furthermore, patients should never be incentivized to consent to social media publication of sensitive material in the form of discounted products, services, or procedures.

Moving Forward

Since engagement with social media is unavoidable for many, plastic surgery requires more concrete guidance regarding the ethical and professional use of social media in daily practice. The development of a consent form specific to social media by the ASPS Social Media Task Force will facilitate improved patient and physician understanding of important social media risks. It is likely that this intervention alone, in addition to allowing his patient to see the proposed video or image, would have enabled Dr. Mayer to avoid the precarious situation in which he now finds himself. Similar to existing advertising guidelines [22, 23], a framework for professional social media engagement should be established and promoted by plastic surgery governing societies. Rather than seeing this framework as harsh or inflexible, a strategy for promoting online professionalism should be viewed as an opportunity to simultaneously distinguish our brand from the more base content of nonboard-certified "cosmetic surgeons." Confronting this issue directly will only serve to maintain our credibility and future reputation as a profession.

References

1. Vardanian AJ, Kusnezov N, Im DD, Lee JC, Jarrahy R. Social media use and impact on plastic surgery practice. *Plast Reconstr Surg.* 2013;131(5):1184-1193.
2. Schencker L. Videos during surgery? Some plastic surgeons go too far, Northwestern researchers say. *Chicago Tribune*. October 4, 2017. http://www.chicagotribune.com/business/ct-biz-plastic-surgeons-post-videos-100517-story.html. Accessed January 31, 2018.
3. Snapdex. Dr. Michael Salzhauer on Snapchat. https://www.snapdex.com/MichaelSalzhauer. Accessed January 31, 2018.
4. Ehlert MJ. Social media and online communication: clinical urology practice in the 21st century. *Urol Pract*. 2015;2(1):2-6.
5. US Department of Health and Human Services. Summary of the HIPAA Security Rule. https://www.hhs.gov/hipaa/for-professionals/security/laws-regulations/index.html. Accessed February 22, 2018.

6. Lifchez SD, McKee DM, Raven RB 3rd, Shafritz AB, Tueting JL. Guidelines for ethical and professional use of social media in a hand surgery practice. *J Hand Surg Am*. 2012;37(12):2636-2641.
7. Azoury SC, Bliss LA, Ward WH, Liepert AE, Leichtle SW. Surgeons and social media: threat to professionalism or an essential part of contemporary surgical practice? *Bull Am Coll Surg*. 2015;100(8):45-51.
8. Rohrich RJ. So, do you want to be Facebook friends? How social media have changed plastic surgery and medicine forever. *Plast Reconstr Surg*. 2017;139(4):1021-1026.
9. Landman MP, Shelton J, Kauffmann RM, Dattilo JB. Guidelines for maintaining a professional compass in the era of social networking. *J Surg Educ*. 2010;67(6):381-386.
10. Furnas HJ. Discussion: the ethics of sharing plastic surgery videos on social media: systematic literature review, ethical analysis, and proposed guidelines. *Plast Reconstr Surg*. 2017;140(4):837-839.
11. Lu J, Nigam M, Song DH. Discussion: the ethics of sharing plastic surgery videos on social media. *Plast Reconstr Surg*. 2017;140(4):840-841.
12. Mata DA, Tilak G, Loeb S, Ramasamy R. Curating a digital identity: what urologists need to know about social media. *Urology*. 2016;97:5-7.
13. Shore R, Halsey J, Shah K, Crigger BJ, Douglas SP; AMA Council on Ethical and Judicial Affairs. Report of the AMA Council on Ethical and Judicial Affairs: professionalism in the use of social media. *J Clin Ethics*. 2011;22(2):165-172.
14. Statista. Snapchat user demographics: distribution of Snapchat users in the United States as of February 2016, by age. https://www.statista.com/statistics/326452/snapchat-age-group-usa/. Accessed October 1, 2017.
15. Mediakix. The Instagram demographics and usage statistics marketers need to know in 2017. http://mediakix.com/2016/09/13-impressive-instagram-demographics-user-statistics-to-see. Updated May 5, 2017. Accessed October 1, 2017.
16. Koch CA, Larrabee WF Jr. Patient privacy, photographs, and publication. *JAMA Facial Plast Surg*. 2013;15(5):335-336.
17. *Jacobellis v Ohio*, 378 US 184 (1964). https://supreme.justia.com/cases/federal/us/378/184/case.html. Accessed February 22, 2018.
18. Carley S. #Medutainment and emergency medicine. Part 1. What is it and where did it come from? *#FOAMed*. October 11, 2015. http://stemlynsblog.org/medutainment-and-emergency-medicine-part-1-what-is-it-and-where-did-it-come-from/. Accessed on January 31, 2018.
19. de Blacam C, Kilmartin D, Mc Dermott C, Kelly J. Public perception of plastic surgery. *J Plast Reconstr Aesthet Surg*. 2015;68(2):197-204.

20. Yavuzer R, Smirnes S, Jackson IT. Guidelines for standard photography in plastic surgery. *Ann Plast Surg.* 2001;46(3):293-300.
21. Beecher HK. Ethics and clinical research. *N Engl J Med.* 1966;274(24):1354-1360.
22. American Medical Association. Opinion 9.6.1 Advertising and Publicity. https://www.ama-assn.org/delivering-care/advertising-publicity. Accessed February22, 2018.
23. American Society of Plastic Surgeons. Code of ethics of the American Society of Plastic Surgeons. https://www.plasticsurgery.org/documents/Governance/asps-code-of-ethics.pdf. Accessed February 22, 2018.

Katelyn G. Bennett, MD, is a fifth-year plastic surgery resident at the University of Michigan in Ann Arbor. She obtained her medical degree from Indiana University School of Medicine and plans to complete a craniofacial fellowship after the completion of residency. Her research interests include patient-reported outcomes in cleft and craniofacial surgery and ethical issues in plastic surgery.

Christian J. Vercler, MD, MA, serves as a clinical assistant professor in the Division of Craniofacial Surgery in the Section of Plastic and Reconstructive Surgery at the University of Michigan in Ann Arbor, where he is also is co-chief of the Clinical Ethics Service of the Center for Bioethics and Social Sciences in Medicine. He completed a fellowship in clinical ethics at the Emory University Center for Ethics and earned a master of arts degree in bioethics from Trinity International University.

Acknowledgements
Katelyn G. Bennett gratefully acknowledges being funded during 2017-2019 by a National Institutes of Health grant (1F32DE027604-01).

Related in the *AMA Journal of Ethics*
Advertising Cosmetic Surgery, May 2010
Can Plastic Surgeons Maintain Professionalism within Social Media?, April 2018
Plastic Surgery's Contributions to Surgical Ethics, April 2018
When Is Advertising a Plastic Surgeon's Individual "Brand" Unethical?, April 2018

ISSN 2376-6980

AMA Journal of Ethics®
April 2018, Volume 20, Number 4: 336-341

ETHICS CASE

What about Learners' Roles in the Operating Room Should Be Disclosed to Patients?

Commentary by Michael J. Kirsch and Steven J. Kasten, MD, MHPE

Abstract

This case commentary primarily focuses on properly disclosing the participation of medical trainees when obtaining informed consent in the educational health care environment, particularly in relation to the development of institutional standardization of informed consent processes. The article addresses what it means to obtain informed consent, the elements thereof, and how ethical principles can be better applied to clinical practice in order to ensure truly informed consent. Concepts of capacity, disclosure of information, patient understanding, voluntary decision making, and consent are discussed as they relate to the case.

Case

Two weeks ago, Ronald learned that the recently biopsied, strangely-colored, large mole on his foot is melanoma. Given the lesion's size, Ronald's surgery will be done by a plastic surgeon, Dr. Rosh, at the academic medical center near his home. Dr. Rosh plans to do a wide excision of the lesion and a skin graft, which he describes to Ronald, who agrees to this approach.

On the day of the surgery, Ronald is waiting in the preoperative area. The resident physician working with Dr. Rosh that morning greets Ronald, "Hello, my name is Dr. Friedman. I am a plastic surgery resident here and I will be assisting Dr. Rosh today."

Ronald expresses surprise, "I thought Dr. Rosh would be doing my surgery. No offense, but I don't want a student doing my surgery. May I please talk to Dr. Rosh?"

Dr. Friedman tries to clarify his role, noting that he's not a student and, as a senior resident physician on Dr. Rosh's team, "It's typical for me to be involved with many of Dr. Rosh's cases. I do these all the time and have a lot of experience." Ronald, still worried, states, "I understand you are qualified to assist Dr. Rosh, but I really just want Dr. Rosh doing the surgery. My brother had a lot of complications after a surgery once. I don't want to take any chances."

"I understand," says Dr. Friedman, as Dr. Rosh enters the room. Ronald briefs Dr. Rosh on his conversation with Dr. Friedman.

Dr. Rosh replies, "Ronald, you do have some say in this, but we do our best work when we work as a team. In fact, it's critical that we work as a team. I don't do any surgeries by myself. Dr. Friedman is one of our best, and I need her assistance in your case today."

Ronald thinks a bit and sighs. "Well, I'm not comfortable with this, but I don't have much choice, do I?" Ronald is shaking a bit, visibly distressed and anxious. They are relieved at Ronald's words, however, and decide to leave it at that. Ronald is wheeled to the operating room.

As they prepare to enter the operating room, Drs. Friedman and Rosh look at one another and acknowledge to each other feeling uncomfortable about Ronald's expression of defeat and capitulation just before surgery. They wondered particularly about how they might have responded differently to Ronald's fears about complications.

Commentary

This case highlights many of the ethical considerations that underlie the integration of medical education into surgical practice. The primary concept that is addressed by this situation is that of informed consent, particularly what patients should be told about the roles of trainees in their care. Informed consent is a somewhat nebulous process that has come to govern disclosures of the risks and benefits of medical procedures offered to patients. It was originally envisioned as a way of ensuring collaborative decision making between the patient and the physician regarding medical care [1]. In modern practice, however, the process of obtaining informed consent has been largely reduced to having the patient sign a piece of paper stating the procedure and the major risks associated therewith. By that standard, our patient, Ronald, might have given his informed consent. However, one could argue that it fails to meet the standards envisioned when the concept of informed consent was first introduced.

The process of informed consent requires satisfying standards with respect to five key domains: decision-making capacity, disclosure of information, patient understanding of information, patients' voluntary decision based upon that information, and, finally, patients' authorizing, or actually agreeing to, the proposed intervention [1]. Ronald appears not to have any factors that would limit his capacity, thus satisfying the first requirement. However, his consent arguably fails to meet the standards of the other domains. Before examining these failures, we must first discuss the present practice of obtaining informed consent.

The Informed Consent Process in the Educational Environment

The process of disclosing trainee participation is not standardized. Previous work in ophthalmology has shown that few hospitals have policies for this disclosure, specifically in terms of who should perform it or what it should include. Institutions that do have policies in place overwhelmingly favor the attending physician being the one to provide the disclosure [2, 3]. However, the prevailing lack of institutional oversight of the consent process can lead to confusion on the part of clinicians who are left without guidance. Despite lack of standardization at the institutional level, there is precedent in mandating the disclosure of the names and roles of those participating in a patient's care but not the method of delivering these disclosures [4]. Research on disclosure of resident participation has shown that informing patients of resident involvement in procedures is highly successful (95 percent consent rate) when a scripted statement is prepared beforehand and then delivered to the patient [4]. In order to ensure adequate understanding, this consent process should be carried at the preoperative visit for patients, which gives them sufficient time to internalize the information, formulate any questions that they might have, and withdraw their consent should they so desire. It has also been shown that patients have poor literacy when it comes to the roles and titles of trainees [5]. For this reason, it is imperative that the consent process describe and emphasize the qualifications and credentials of the trainees who will participate in the procedure. A patient who would otherwise consent to the procedure might refuse consent due to a poor understanding of the qualifications and roles of trainees, which is a failure in the process of obtaining informed consent.

How Does the Training Environment Affect the Content of Informed Consent?

With regard to the content of the disclosure, it should be recognized that the data establishing the risks of the recommended procedure were generated from the surgeon's previous experience, which included resident involvement, and studies performed at teaching institutions that included resident involvement. Therefore, the data are most likely generalizable to other care environments with resident involvement. This focus on content will help to ensure that the patient is basing his decision on data presented to him rather than on a gut reaction to having a trainee involved in his procedure. Previous work has recommended the inclusion of resident physician participation as a part of the disclosure rather than being optional [4]. While it could be argued that it is disingenuous to presume resident physician involvement, it is often a deviation from the standard of practice to not involve resident physicians in the procedures performed in teaching hospitals. Rather than ask the patient to give his blessing to be used as practice for a trainee as Ronald was asked to do, it might be cleaner and less uncomfortable to bill this issue as a necessary and integral part of the process.

Yet inclusion of resident participation as a given part of a standard disclosure might seem simply to be an attempt to sidestep a complex discussion with the patient because

it fails to take into account the inherent complexity of the uncertainty underlying disclosure of surgical risk. The assumption that Ronald makes is one that might seem intuitive: that by allowing a less experienced medical professional to play a role in his procedure, he is assuming a greater risk of complications. While this line of reasoning might seem logical, the truth is less clear. A growing body of work suggests just the opposite. At academic medical centers, surgical residents carry out many of the functions that allow the institutions to run surgical services. This involvement occurs to such an extent that to exclude residents from participation in patient care would be a significant departure from standard practice at these institutions. Several studies have shown that lack of standardization of care leads to increased morbidity and mortality [6, 7]. It follows, then, that deviation from standard practice (including reducing or restricting resident involvement) could lead to increased risk. Thus, Ronald's desire to protect himself from additional risk of complications by excluding the resident from his surgical team might, counterintuitively, have the opposite effect. Viewed in this way, the practice of including resident participation in the standard disclosure when obtaining informed consent might not be an attempt to avoid a difficult discussion. Instead, this bundling could be a legitimate effort to provide the patient with a complete disclosure, one with expected risks and benefits that are known and supported by data.

Following a sufficient disclosure of the information necessary for the patient to make an informed decision, the patient must have an understanding of this material. Ronald clearly did not have an adequate understanding of the resident physician's involvement in the procedure he was about to undergo, given his surprise and resistance once informed of the participation of a resident in his care. One could argue that this disclosure might unnecessarily increase the anxiety levels of the patient well in advance of a procedure, but research has shown that this is not the case [9]. It is, however, the case that patients have very poor recollection of the content of the disclosure after the procedure [9], and those who did not recall being informed at the time of consent that trainees would participate in their care were much more concerned about it than those who did recall being informed [9].

Informed Consent Requires Proper Timing

The period of time between the consent process and the procedure allows patients to consider the question of whether they are willing to have resident participation in their care or would prefer to seek care elsewhere. This is a question that might weigh heavily on the minds of those seeking to undergo elective cosmetic procedures. However, the authors believe that there are no differences between the concerns about risk of cosmetic patients and patients undergoing cataract surgery, a procedure that can similarly have significant impact on the patient's quality of life. Even if a patient is presenting to a particular surgeon for a cosmetic procedure, the risks and outcomes cited in the disclosure would presumably be based on published data and the surgeon's experience with that procedure as performed with resident participation. Patients who

still have questions or concerns might also be referred to the results of cosmetic resident clinics, which have been shown to have similar outcomes to practices run by attending surgeons alone with respect to satisfaction and rates of complications [9].

Because of the late stage at which the full disclosure of resident participation in his procedure was made to Ronald, Drs. Rosh and Friedman end up engaging in some form of coercion. They might have felt this was necessary, given the institutional pressures regarding operating room time as well as the standard procedures regarding the integration of trainees into procedures and care of the patient. However, the ethical implications of this approach are clearly uncomfortable for all parties involved, given their individual reactions. At the core of their discomfort is the violation of the fourth requirement of informed consent, the voluntary nature of the patient's decision making. The combination of the timing at which this information is presented to Ronald, along with the pressure that the two surgeons place on him, runs counter to this requirement. Ronald sums it up when he says, "I don't have much choice, do I?" This uncomfortable situation could have been avoided with earlier and adequate disclosure. Even if Ronald were to have the same negative reaction to the idea of Dr. Friedman participating in his procedure, there would at least be sufficient time for him to have a complete understanding of the information and to make a voluntary decision without the undue influence of the surgeon.

The final provision that informed consent must satisfy is that the patient actually agrees to undergo the proposed intervention under the conditions specified about resident physician involvement. While Ronald eventually does acquiesce by agreeing to both the procedure and Dr. Friedman's involvement, this process does not satisfy the requirements of informed consent. It falls short of meeting the standards of adequate disclosure, understanding, and the voluntary nature of consent. By obtaining Ronald's consent in this way, Drs. Rosh and Friedman have— despite what we can assume to be their best intentions—failed to respect Ronald's autonomy as a person and, ultimately, failed to obtain informed consent to perform this procedure.

References

1. Appelbaum PS, Lidz CW, Meisel A. *Informed Consent: Legal Theory and Clinical Practice*. Fair Lawn, NJ: Oxford University Press; 1987.
2. Chen AJ, Scott IU, Greenberg PB. Disclosure of resident involvement in ophthalmic surgery. *Arch Ophthalmol*. 2012;130(7):932-934.
3. Steeples L, Mercieca K, Smyth K. Consent for cataract surgery training: a national trainers' survey. *Eye (Lond)*. 2012;26(5):666-670.
4. Gan KD, Rudnisky CJ, Weis E. Discussing resident participation in cataract surgery. *Can J Ophthalmol*. 2009;44(6):651-654.

5. Hemphill RR, Santen SA, Rountree CB, Szmit AR. Patients' understanding of the roles of interns, residents, and attending physicians in the emergency department. *Acad Emerg Med*. 1999;6(4):339-344.
6. Rowan CM, Nitu ME, Rigby MR. Inconsistencies in care of the pediatric hematopoietic stem cell transplant recipient with respiratory failure: opportunity for standardization and improved outcome. *Pediatr Transplant*. 2014;18(2):230-235.
7. Rozich JD, Howard RJ, Justeson JM, Macken PD, Lindsay ME, Resar RK. Standardization as a mechanism to improve safety in health care. *Jt Comm J Qual Saf*. 2004;30(1):5-14.
8. Vallance JH, Ahmed M, Dhillon B. Cataract surgery and consent: recall, anxiety, and attitude toward trainee surgeons preoperatively and postoperatively. *J Cataract Refract Surg*. 2004;30(7):1479-1485.
9. Koulaxouzidis G, Momeni A, Simunovic F, Lampert F, Bannasch H, Stark GB. Aesthetic surgery performed by plastic surgery residents. *Ann Plast Surg*. 2014;73(6):696-700.

Michael J. Kirsch is a third-year medical student at the University of Michigan Medical School in Ann Arbor.

Steven J. Kasten, MD, MHPE, is an associate professor, an associate chair for education in the Department of Surgery, and a faculty member for the Master of Health Professions Education program at the University of Michigan Medical School in Ann Arbor. He is also the director of Graduate Medical Education Innovation for the medical school and has more than 15 years of experience in residency program leadership and graduate medical education oversight. He received his MD from the University of Michigan and his MHPE from the University of Illinois at Chicago.

Related in the *AMA Journal of Ethics*

How Should Trainee Autonomy and Oversight Be Managed in the Setting of Overlapping Surgery?, April 2018
Informed Consent: What Must a Physician Disclose to a Patient?, July 2012
Managing Risk in Cataract Surgeries Performed by Resident Ophthalmologists, December 2010
Plastic Surgery's Contributions to Surgical Ethics, April 2018

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental.

ISSN 2376-6980

AMA Journal of Ethics®
April 2018, Volume 20, Number 4: 342-348

ETHICS CASE

How Should Trainee Autonomy and Oversight Be Managed in the Setting of Overlapping Surgery?

Commentary by Jean-Nicolas Gallant, PhD, and Alexander Langerman, MD, SM

Abstract

This case highlights an attending surgeon's conflicts between duty to care for individual patients, train independent surgeons, and serve a patient population in an efficient manner. Although oversight of surgical residents and multiple operating room scenarios can be conducted in an ethical manner, patients might not understand the realities of surgical training and clinical logistics without explicit disclosure. Central to the ethical concerns of the case are the attending surgeon's obfuscation of resident involvement and her insufficient oversight of two concurrent procedures. Full and proper informed consent, increased transparency, better planning, and improved communication could have prevented this difficult situation.

Case

Dr. Kim walks into the preoperative area of the hospital to greet her team of resident physicians and medical students early in the morning before a day full of cases. Dr. Mali and Dr. Lora, Dr. Kim's senior residents, greet her and begin discussing patients. "Dr. Mali, you'll be in Mr. C's ischial wound debridement and closure, and Dr. Lora, you'll be leading Mrs. B's blepharoplasty," Dr. Kim says.

Dr. Lora looks somewhat hesitant. "I apologize, Dr. Kim, it's been a while since I have done a blepharoplasty. I am not sure that it's safe for me to be doing the operation without your observation and assistance."

"Thank you for letting me know. Dr. Mali, are you okay with doing the majority of Mr. C's procedure?" Dr. Kim asks while walking toward the patients' beds. Dr. Mali nods in agreement with this plan, saying, "I've done so many of these debridements, I don't think I will need much help."

Both Mr. C's and Mrs. B's cases are the first of the day, so Dr. Kim and her team meet both patients before they are wheeled into the operating rooms. Dr. Kim assures both patients, creating the impression that she will be doing each of their cases.

Dr. Kim walks into Mr. C's operating room to be present for time out, which is a check-in before the procedure begins. After Mr. C is anesthetized, she tells Dr. Mali, "I'll be back at the very end when you're closing up. I'll be in Mrs. B's room helping Dr. Lora." Dr. Kim leaves.

Dr. Mali proceeds with the case and encounters a lot of bleeding when creating the muscular flap to cover the wound. He ligates and cauterizes the vessels and is able to control the bleeding. As Dr. Kim promised, she returns for the end of the case.

Later that day, Dr. Mali gets a page that Mr. C has a significant hematoma at the surgery site. He pages Dr. Kim and they both go to Mr. C's bedside. They tell Mr. C, "This is a complication from your surgery this morning. We are going to have to take you back to the operating room." Mr. C sighs and says, "Dr. Kim, how could this have happened with you as my surgeon?" Dr. Kim is unsure how to answer.

Commentary

It is a fundamental ethical requirement for physicians to deal honestly and openly with patients at all times [1]. Being honest supports accepted bioethical principles—respect for autonomy, beneficence, nonmaleficence, and justice [2]—and is the foundation for trust, the keystone of the patient-physician relationship [3]. Here, Dr. Kim put herself in a difficult situation by obfuscating the role of resident surgeons in her operations and by failing to disclose her oversight of multiple surgeries. A truthful explanation of the circumstances of Mr. C's complication—that his case was handled primarily by her resident while she was in another operating room—would likely surprise Mr. C and potentially undermine his future trust in her. Furthermore, it appears from the scenario that Dr. Kim might not even have been present for any of the case, calling into question whether she truly provided oversight. To evaluate this case, we will draw upon four key topics in surgical ethics: (1) the necessity of disclosure for informed consent, (2) the distinction between overlapping and concurrent surgery, (3) the balance between trainee oversight and autonomy, and (4) the relationship between complications and errors.

Disclosure

Unless informed otherwise, it is reasonable for patients to assume that the attending surgeon will be present for and perform all of their surgery. That surgeons might circulate between operating rooms and that residents can perform routine portions of procedures independently is not (yet) common knowledge. This informational asymmetry places the burden of disclosure on the surgeon. Although professional surgical guidelines do not directly address the issue of trainee involvement in overlapping operations, respect for autonomy demands that patients be informed of trainee participation and of which portions of their case will not have attending physician presence. It would also be appropriate to indicate any risks that are uniquely associated with the portions for which the attending physician will not be present. In this case, it

would have been appropriate for Dr. Kim to explain that the senior resident would be handling the majority of the procedure, to state his apparent experience performing debridements, to explain what aspects she would be overseeing directly, and to discuss the common risks (e.g., bleeding) so that the patient could better understand the care he is receiving. Such disclosure allows patients to give informed consent to the procedure or to refuse the proposed plan of care.

Disclosure needs to be not only clear and honest but also timely. When possible, explanations of resident participation and overlapping cases are best handled prior to the day of surgery. Indeed, several aspects of this case would have been better handled earlier—the case reads as though the senior residents were unaware of the cases they would be participating in (ostensibly leaving them no opportunity to prepare, read ahead, or flag the attending surgeon of their inexperience), and, by extension, Dr. Kim was unaware of the help she would have for each of the cases. While the ideal of knowing every case's exact timing and team composition in advance can be challenging to accomplish, surgeons should strive to plan as much in advance as possible, especially when proposing to economize their effort over multiple cases or rooms [4]. Surgeons running multiple rooms should also be prepared to adjust operative schedules when it becomes apparent that ethical care is not feasible. In this case, Dr. Kim could conceivably have pushed back the start of one of the cases to ensure that she was present for the "critical portions" of both.

The Distinction between Overlapping and Concurrent Surgery

The notion of critical portions is central to the recent controversy concerning overlapping surgery. Surgeons frequently oversee and "operate" in two rooms at once in academic medical centers [5], focusing their time in individual cases on the portions that require advanced judgment, skill, or expertise (i.e., the critical portions). This economical use of surgeon effort can lead to increased throughput, decreased wait time for patients, and more of a surgeon's procedures being performed during "daylight hours" when experienced teams and ancillary services are more readily available [4, 6]. The practice of overlapping surgery is formally approved within a framework set forth by the Centers for Medicare and Medicaid Services (CMS) and requires an attending surgeon to be present for the "critical or key portions" of both overlapping procedures [7]. This means that attending surgeons have latitude to delegate "noncritical" portions of procedures to qualified trainees, a practice that is specifically acknowledged by the American College of Surgeons (ACS) [8]. The American Medical Association (AMA) also acknowledges the participation of substitutes and endorses full and proper informed consent (which, in this case, would include "notify[ing] the patient … that others will participate, including whether they will do so under the physician's personal supervision or not" [9]). Other prominent professional societies, such as the American Society of Plastic Surgeons (ASPS), support proper informed consent but do not have specific statements with regard to the ethics of running two operating rooms [10].

In contradistinction to overlapping surgery, "concurrent" surgery, in which the critical or key portions of procedures are occurring at the same time (as appears to have happened in this case), is inappropriate. As discussed above, it is reasonable for patients to assume that the attending surgeon will lend his or her skills and time during the critical portion of the surgery. Therefore, because the attending surgeon is absent during critical portions, concurrent operations deny the implicitly promised care to the patient. Moreover, the operations are unjust (in that only one of two concurrent patient receives the benefit of the expert attending surgeon's skills) and possibly maleficent (causing harm with unclear benefit). Legally, concurrent operations approach medical fraud: such procedures are not eligible for CMS payment unless the teaching physician is physically present during all "critical or key" portions of the procedure and "immediately available" (or assigns a colleague to be immediately available) during other portions [7].

From the wording of the case as it pertains to Mr. C, we don't know for how much (if any) of the actual operating Dr. Kim was present. That surgeons are entrusted to define critical portions for a given case implies that at least *some* portion of every case is "critical." Although there are some emerging attempts to generate consensus on what constitutes the critical portions of specific procedures [11], we cannot, at this point, definitively say what would have been critical in this case. At the very least, we would expect Dr. Kim to be present for *some* of the procedure, to a degree that she could personally ensure that the case was done properly (even if she was confident in Dr. Mali's work).

Trainee Oversight and Autonomy

Surgical residency training involves residents progressing from surgical assistance and observation to independent performance of surgical tasks. Concomitantly, there is a natural transition in attending surgeon oversight from "show and tell" to "no help" [12]. This last stage of training, at which point an attending surgeon typically provides no unsolicited advice to a resident, still requires attending surgeon oversight to ensure optimal patient care. At no point in surgical residency training is there a no-supervision phase [4]. It would be incumbent on the supervising physician, at the very least, to inspect the work of the resident, which means being present at a stage in the case prior to closure when factors in the adequacy of the care can be assessed (e.g., in this case, complete debridement, viability of the flap, skin tension, and hemostasis might all be important). The case describes Dr. Kim's presence only "at the very end" once closing was underway, suggesting she might not have been able to do even this minimum of oversight in this particular case.

Errors and Complications

Regardless of resident involvement in surgery, complications are a near inevitable part of surgical treatment. Even patients of the best surgeons might have surgical

complications, and a complication does not mean an error occurred. This point warrants additional clarification: when anticipated potential negative consequences occur, they are considered complications—a term distinct from error. Errors, in medicine, are preventable acts of omission or commission that could or could not lead to complications [13]. Dr. Kim (and we) can't know if the complication—a hematoma requiring reoperation—was caused by an error. It might alternatively have been caused by uncontrollable factors or even factors outside the operating room (e.g., a rough bed transfer). Her absence from the case denies us an "attending surgeon level" evaluation of the causative factors and also denies Dr. Mali a potential educational opportunity and Mr. C an acceptable explanation. While the complication might not have been due to an error and been unpreventable even in the best hands, once the circumstances surrounding this error are revealed to Mr. C, he might— understandably—conclude the complication was directly due to Dr. Kim's lack of oversight.

Conclusion

The duty of the attending surgeon to the patient requires oversight of and responsibility for resident actions. Attending surgeons are obligated to personally ensure that portions of procedures performed independently by residents were done correctly and that any complications or errors be disclosed in detail to the patient. Dr. Kim should disclose her lack of appropriate oversight to Mr. C and explain, in a manner that does not inappropriately "blame" Dr. Mali for the outcome, that she was wrongly involved in concurrent surgeries on two different patients in two different operating rooms. Dr. Kim should apologize for poorly informing the patient of the logistical and training circumstances regarding the patient's surgery and attempt to salvage any trust in the relationship. She also should not attempt to bill for this case if she wasn't present for the critical portions. Finally, Dr. Kim and her team should present this case at a departmental morbidity and mortality conference to receive feedback, improve their practice, and prevent this situation from happening again. Future strategies for preventing this situation might include better planning of the cases and of resident involvement, more transparent disclosure about the (important and valuable) role of trainees, and latitude to delay the start of cases when proper attending surgeon oversight cannot be assured.

References

1. American Medical Association. Principles of medical ethics. *Code of Medical Ethics*. https://www.ama-assn.org/delivering-care/ama-principles-medical-ethics. Accessed January 30, 2018.
2. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 7th ed. New York, NY: Oxford University Press; 2013.
3. Pellegrini CA. Trust: the keystone of the patient-physician relationship. *J Am Coll Surg*. 2017;224(2):95-102.
4. Langerman A. Careful, compassionate, concurrent surgery. *Boston Globe*. January 10, 2016. https://www.bostonglobe.com/ideas/2016/01/10/careful-

compassionate-concurrent-surgery/YBNewe5HE6ygL05N27UIxJ/story.html. Accessed November 16, 2017.
5. Abelson J, Saltzman J, Kowalczyk L. Clash in the name of care. *Boston Globe*. October 24, 2015. https://apps.bostonglobe.com/spotlight/clash-in-the-name-of-care/story/. Accessed November 16, 2017.
6. Langerman A. Concurrent surgery and informed consent. *JAMA Surg*. 2016;151(7):601-602.
7. US Senate Finance Committee. Concurrent and overlapping surgeries: additional measures warranted. https://www.finance.senate.gov/imo/media/doc/Concurrent%20Surgeries%20Report%20Final.pdf. Published December 6, 2016:3. Accessed January 1, 2018.
8. American College of Surgeons. Statement on principles. https://www.facs.org/about-acs/statements/stonprin. Revised April 12, 2016. Accessed January 1, 2018.
9. American Medical Association. Opinion 2.1.6 Substitution of surgeon. *Code of Medical Ethics*. https://www.ama-assn.org/delivering-care/substitution-surgeon. Accessed January 30, 2018.
10. American Society of Plastic Surgeons. Code of ethics of the American society of plastic surgeons. https://www.plasticsurgery.org/documents/Governance/asps-code-of-ethics.pdf. Updated September 25, 2017. Accessed January 1, 2018.
11. Laratta JL, Cohen-Tanugi S, Shillingford JN, et al. Defining the "critical elements" for the most common procedures in spine surgery: a consensus of orthopaedic and neurosurgical surgeons [published online ahead of print September 15, 2017]. *Spine*. doi:10.1097/BRS.0000000000002416.
12. DaRosa DA, Zwischenberger JB, Meyerson SL, et al. A theory-based model for teaching and assessing residents in the operating room. *J Surg Educ*. 2013;70(1):24-30.
13. Angelos P. Complications, errors, and surgical ethics. *World J Surg*. 2009;33(4):609-611.

Jean-Nicolas Gallant, PhD, is a trainee in the MD-PhD Medical Scientist Training Program at Vanderbilt University in Nashville, Tennessee. He completed his PhD on the genetic basis of non-small cell lung cancer. After completing his MD, he plans to complete a residency in otolaryngology with the goals of pursuing a career as a head and neck surgeon, researcher, and ethicist.

Alexander Langerman, MD, SM, is a head and neck surgeon and ethicist at Vanderbilt University Medical Center in Nashville, Tennessee, with appointments in the Department of Otolaryngology and the Center for Biomedical Ethics and Society. With a master's degree in clinical and administrative data science, he also directs the Surgical Analytics Lab at Vanderbilt. His research focuses on the intersection between ethics, data science, and logistics in the operating room, addressing topics such as surgeon-patient decision

making, informed consent, surgical transparency, and "black box" recording.

Acknowledgements

Alexander Langerman gratefully acknowledges funding received from the Greenwall Foundation and the Triological Society to conduct this research.

Related in the *AMA Journal of Ethics*

Disclosure of Experience as a Risk Factor in Informed Consent for Neurosurgery: The Case of *Johnson v. Kokemoor*, January 2015

Informed Consent: What Must a Physician Disclose to a Patient?, July 2012

Managing Risk in Cataract Surgeries Performed by Resident Ophthalmologists, December 2010

Medical Culture and Error Disclosure, May 2008

What about Learners' Roles in the Operating Room Should Be Disclosed to Patients?, April 2018

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental.

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 349-356

IN THE LITERATURE

Plastic Surgery's Contributions to Surgical Ethics

Chad M. Teven, MD, and Scott B. Grant, MD, MBioethics

Abstract

We review Kevin Chung and colleagues' 2009 *Plastic and Reconstructive Surgery* article, "A Systematic Review of Ethical Principles in the Plastic Surgery Literature," which shows that only 110 of the more than 100,000 plastic surgery articles clearly focus on ethical principles. The four fundamental ethical principles (i.e., respect for autonomy, beneficence, nonmaleficence, and justice) were differentially emphasized, with respect for autonomy being most common. Despite the number of ethical issues faced by plastic surgeons, this systematic review found that a relatively small fraction of the plastic surgery literature has focused on ethical principles. Here, we highlight the importance of this analysis and discuss how its findings might be extrapolated from plastic surgery ethics to surgical ethics writ large.

Introduction

From the days of plastic surgery pioneers Sushruta [1], Gaspare Tagliacozzi [2], and, more recently, Joseph Murray [3], to the present, the field of plastic and reconstructive surgery has progressed rapidly. The proliferation of innovative procedures and treatments has led to novel and distinct ethical challenges. In 2009, Chung et al. embarked on a systematic review of ethical principles in the plastic surgery literature [4]. Interestingly, despite the number and complexity of ethical dilemmas faced by plastic surgeons, Chung et al. found a relatively small proportion of articles in the plastic surgery literature focused on ethical issues.

Plastic surgeons care for patients with critical illness (e.g., advanced malignancy, necrotizing soft tissue infections, severe burns, or traumatic amputations), those seeking cosmetic improvement, children with congenital anomalies, and patients for whom face or hand transplantation is being considered, among others. Due to the diversity and complexity of cases treated, plastic surgeons are often confronted with significant ethical challenges. Common plastic surgery ethical dilemmas include: weighing the risks and benefits of and obtaining informed consent for elective cosmetic surgery in otherwise healthy people, devising a moral strategy for marketing aesthetic surgery, considering a fair price to charge for services not covered by insurance, and addressing concerns about identity and the risks of immunosuppression when considering facial

transplantation. Here we examine the ethical principles applied by plastic surgeons to address the first three of these dilemmas and argue that these ethical principles can inform surgical ethics writ large. Indeed, constantly contemplating and wrestling with the four core ethical principles examined by Chung et al. [4] is what distinguishes ethical surgeons from unscrupulous surgeons.

Applying the Four Core Bioethical Principles in Plastic Surgery

As noted by Chung et al. [1], medical ethics in the United States most commonly adheres to the moral theory of principlism, first described by Beauchamp and Childress in 1979 [5]. Within this framework, reasoning about ethical issues is based upon four moral principles: respect for autonomy, beneficence, nonmaleficence, and justice. Respect for autonomy describes a patient's right to self-determination and self-governance and to accept or refuse care. Beneficence is the principle that one ought to do and promote good for the patient while preventing harm. Nonmaleficence dictates that a physician must not intentionally inflict harm on a patient. Distributive justice dictates that patients be treated similarly and fairly, with the result that benefits, risks, and costs are equally distributed among them. Plastic surgeons must carefully consider these principles when caring for patients.

In the plastic surgery literature, these four core principles are not given equal attention. Chung et al. found that the most common principle discussed in the plastic surgery literature is respect for autonomy [4]. Respect for autonomy encompasses discussions of informed consent for procedures, photography, and marketing, all of which are particularly important within the field of plastic surgery where before-and-after images are foundational to patient understanding and evaluation of a surgeon's outcomes. The next most common theme to receive attention is beneficence [4]. Conversations of risks and benefits fall within the purview of both respect for autonomy and beneficence. Often related to beneficence is nonmaleficence, which is the third most common principle discussed [4]. Distributive justice in plastic surgery is considered least often but still is an important ethical principle in the practice of medicine [4]. Below we discuss applications of these principles.

Informed consent in plastic surgery. Patients trust surgeons and look to them for guidance about the range of treatment options and recommendations. Surgical informed consent is a cornerstone of the patient-physician relationship and an important expression of respect for patient autonomy. For example, discussion of the treatment risks and benefits and alternatives—including the risks and benefits of the alternatives—is an integral part of the informed consent process. For surgeons of all specialties, including plastic surgery, informed consent should be a process rather than simply an event culminating with a patient's or surrogate's signature on an authorization form. The need for a process tailored to individual patients is suggested by evidence that postoperative patients' retention of information about risks is limited [6]. Evidence also suggests that

how long surgeons spend obtaining informed consent matters to comprehension and is highly variable [7].

As highlighted by Chung et al., how risks and benefits are communicated during informed consent processes in cosmetic plastic surgery is important, and the authors discuss several studies on plastic surgery informed consent that examine techniques for communicating risk that express respect for patients' autonomy [4]. For example, Makdessian et al. evaluated the effectiveness of oral communication compared to both oral and written communication in informed consent processes for rhinoplasty, rhytidectomy, or laser resurfacing [8]. Patients receiving both oral and written communication demonstrated significantly better recall about risks of facial cosmetic procedures than patients receiving oral communication only. Although these findings apply to surgery and medicine writ large, the importance of informed consent in surgery, where every operation begins by hurting before healing, makes the consent process perhaps even more consequential than in medicine more generally.

Additionally, plastic surgeons, like all surgeons, might be held to three different standards regarding the informed consent process: the professional standard, the reasonable patient standard, and the specific patient standard [9]. The professional standard refers to disclosing the same information that other surgeons with the same training in the same clinical situation would tell their patients [9]. The reasonable patient standard refers to disclosing the information that a prudent patient would need to know regarding the benefits and risks of and alternatives to a procedure to make an informed decision whether or not to consent [9]. Finally, the specific patient standard refers to disclosing the information that a specific patient would need to know, given his or her unique values, to make an informed decision about whether or not to consent to treatment [9]. These standards help patients and their surgeons establish mutually understood and agreed-upon expectations preoperatively. Clear communication about expectations is important for all surgeries, and, we suggest, even more important when surgery is elective, cosmetic, and not covered by insurance.

Unique ethical concerns in plastic surgery. Plastic surgeons, more so than other physicians and surgeons, contend with the effects of "reality television" on patients' expectations, particularly cosmetic surgical patients' expectations [10, 11]. Ethical concerns arising from reality television include misrepresentation and misunderstanding of surgical risks and outcomes, which affect the informed consent process and thus respect for autonomy; the surgeon must provide realistic odds regarding the likelihood of obtaining the desired result to the patient. Increasingly, surgeons and physicians in other specialties are advertising and marketing their services [12]. It would behoove those who are taking part in such activities to look to the plastic surgery literature for guidance on appropriate practices. The American Society of Plastic Surgeons, which is the largest plastic surgery specialty organization in the world, has published a Code of Ethics that

details accepted practices with respect to advertising, solicitation, and more [13]. For example, if models used in advertisements have not undergone the procedure being advertised, it must be clearly stated that the model has not received the advertised services. In addition, one should not solicit or initiate contact with a potential patient if it is apparent that this person is unable to exercise reasonable judgement in deciding whether to employ the physician's services [13].

Conflict of interests. A further ethical concern is the selection of surgical procedures offered and the financial conflicts of interest the plastic surgeon encounters [14]. In cosmetic surgery, patients seek guidance regarding the best procedure to improve a specific concern. Unbeknownst to the patient—and potentially the surgeon—are competing factors that might influence the surgeon's recommendation. For example, a patient with significant rhytids (wrinkles) might seek advice on enhancement. It is the surgeon's ethical obligation to offer what he or she believes would provide the best outcome as well as reasonable alternatives. However, various options can be associated with significantly different levels of remuneration (e.g., traditional facelift versus hyaluronic acid filler injection). In many other areas of surgery, by contrast, there is only one appropriate surgical option (e.g., an appendectomy for appendicitis). The plastic surgeon should provide to a patient all potential options and offer a recommendation based on evidence and not his or her own financial interest. In the current health care climate, which includes decreasing and delayed reimbursement and increasing administrative burden, remuneration (whether in the form of cash, relative value units (or other compensation) is a potential factor that competes with a patient's best interests [15]. Since plastic surgeons experience this ethical dilemma more frequently than physicians in other specialties, surgeons in other disciplines could learn from plastic surgeons' approaches to informed consent and expectation-management communication techniques. Just as plastic surgeons must provide all reasonable options regardless of remuneration and make a recommendation based on optimal patient care rather than competing interests such as compensation, all surgeons must provide and recommend the full range of treatment options that will serve the best interests of their patients (for instance, antibiotics as an alternative to appendectomy).

The Difference between *Can* and *Should*

A final point that warrants discussion is an issue that frequently arises in plastic surgery— balancing respect for patient autonomy against nonmaleficence. Plastic surgeons often receive requests for an operation by a patient who believes that it will provide improvement, although the surgeon disagrees. Consider a patient with body dysmorphic disorder (BDD). BDD is a psychiatric illness that consists of an obsession or preoccupation with a minor or nonexistent flaw in physical appearance that leads to significant distress [16]. It affects 1-2 percent of the general population but may be 15 times more prevalent in plastic surgery patients [17]. These patients might have previously undergone multiple procedures to address their concern without perceiving

improvement and could have unrealistic expectations. In many cases, a procedure in question could be medically indicated (e.g., septorhinoplasty for dorsal hump or septal deviation). However, recognizing that the procedure would likely be insufficient to meet the goals of a patient with BDD, a plastic surgeon ought not to perform the operation, because mutually understood and agreeable expectations cannot be established within the patient-surgeon relationship. That is, just because one *can* perform an operation, which might or might not be medically indicated, does not mean one *should* perform an operation [18].

This scenario is not exclusive to cases in which the patient suffers from psychiatric illness. Consider the morbidly obese patient who comes to the plastic surgeon for lipoabdominoplasty with the expectation that it will significantly improve body habitus and obesity-induced comorbidities. While the surgeon can legally offer the procedure and receive compensation, a responsible physician would recognize that it would not achieve the desired result and the alternative of bariatric surgery, perhaps later followed by body contouring procedures after weight loss, would be more clinically appropriate. To reiterate, simply because an autonomous patient with decision-making capacity requests a procedure does not imply that it would be ethically sound to perform the procedure on that particular patient.

This ethical principle, in which *can* and *should* ought to be separated and considered independently, should be applied to other surgical disciplines. For example, in a patient with head and neck cancer with distant metastases, an otolaryngologist could operate to remove the patient's cancerous lesion, but having this ability does not mean that he or she should do so, since it would not be likely to alter the patient's terminal prognosis, could add a significant morbidity and mortality risk, and would entail a recovery period that at least temporarily precludes systemic cancer therapy.

Another example illustrating when *can* should not imply *should* arises in the case of a brain-dead patient who suffered an intracranial bleed resulting in uncal herniation and cessation of neurologic activity. Family members might mistakenly believe that performing a neurosurgical procedure to reduce intracranial pressure would improve the patient's condition. While the consulting neurosurgeon could offer a hemicraniectomy in order to fulfill the family's wishes, doing so would be unethical because the patient is brain dead; the procedure cannot change that outcome.

Cases like these suggest that expressing respect for patient autonomy is central to the practice of ethical medical care but that patient autonomy should not be regarded as sufficient to compel a surgeon to perform an operation that is not clinically indicated. Surgeons, too, have autonomy— professional autonomy—which should be exercised carefully when deciding whether to perform a requested procedure. This decision, like all others in health care, should be made with the core ethical principles discussed here.

Conclusion

Plastic surgeons use the four core ethical principles described by Beauchamp and Childress to guide decision making. Despite the complex ethical scenarios often faced within plastic surgery, the plastic surgery literature has a relative dearth of papers primarily focusing on ethics, as documented by Chung et al. [4]. As plastic surgery and other surgical fields continue to advance with developing technology and surgical techniques, parallel progression in ethical reflection and discourse is still needed. Many ethically and clinically complex scenarios within plastic surgery could inform other surgical disciplines, as they have in the past.

References

1. Champaneria MC, Workman AD, Gupta SC. Sushruta: father of plastic surgery. *Ann Plast Surg.* 2014;73(1):2-7.
2. Tomba P, Viagonó A, Ruggieri P, Gasparrini A. Gaspare Tagliacozzi, pioneer of plastic surgery and the spread of his technique throughout Europe in "De Curtorum Chirurgia per Insitionem." *Eur Rev Med Pharmacol Sci.* 2014;18(4):445-450.
3. Rogers NE. Joseph E. Murray, MD. Profound achievement through plastic surgery. *J La State Med Soc.* 2000;152(7):323-327.
4. Chung KC, Pushman AG, Bellfi LT. A systematic review of ethical principles in the plastic surgery literature. *Plast Reconstr Surg.* 2009;124(5):1711-1718.
5. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. New York, NY: Oxford University Press; 1979.
6. Sherlock A, Brownie S. Patients' recollection and understanding of informed consent: a literature review. *ANZ J Surg.* 2014;84(4):207-210.
7. Fink AS, Prochazka AV, Henderson WG, et al. Predictors of comprehension during surgical informed consent. *J Am Coll Surg.* 2010;210(6):919-926.
8. Makdessian AS, Ellis DAF, Irish JC. Informed consent in facial plastic surgery. *Arch Facial Plast Surg.* 2004;6(1):26-30.
9. Grant SB, Modi PK, Singer EA. The surgical informed consent process. In: Ferreres AR, Angelos P, Singer EA. *Ethical Issues in Surgical Care*. Chicago, IL: American College of Surgeons; 2017:chap 9.
10. Armenio A, Annacontini L, Dionyssiou D, Simone M. Informed consent and its central role in plastic and cosmetic surgery. *Plast Reconstr Surg.* 2008;122(1):324-325.
11. Crockett RJ, Pruzinsky T, Persing JA. The influence of plastic surgery "reality TV" on cosmetic surgery patient expectations and decision making. *Plast Reconstr Surg.* 2007;120(1):316-324.
12. Mohney S, Lee DJ, Elfar JC. The effect of orthopedic advertising and self-promotion on a naïve population. *Am J Orthop (Belle Mead NJ).* 2016;45(4):e227-e232.

13. American Society of Plastic Surgeons. Code of ethics of the American Society of Plastic Surgeons. https://www.plasticsurgery.org/documents/Governance/asps-code-of-ethics.pdf. Updated September 25, 2017. Accessed November 11, 2017.
14. Zbar RIS, Taylor LD, Canady JW. Ethical issues for the plastic surgeon in a tumultuous health care system: dissecting the anatomy of a decision. *Plast Reconstr Surg.* 2008;122(4):1245-1252.
15. Cunningham PJ, O'Malley AS. Do reimbursement delays discourage Medicaid participation by physicians? *Health Aff (Millwood).* 2009;28(1):w17-w28.
16. Crerand CE, Franklin ME, Sarwer DB. MOC-PS(SM) CME article: patient safety: body dysmorphic disorder and cosmetic surgery. *Plast Reconstr Surg.* 2008;122(4)(suppl):1-15.
17. Tadisina KK, Chopra K, Singh DP. Body dysmorphic disorder in plastic surgery. *Eplasty.* 2013;13:ic48. http://www.eplasty.com/index.php?option=com_content&view=article&id=965:body-dysmorphic-disorder-in-plastic-surgery&catid=49. Accessed February 23, 2018.
18. Angelos P. The problem of "is" and "ought" for surgeons. *ACS Surgery News*. October 11, 2016. https://www.mdedge.com/acssurgerynews/article/113831/problem-and-ought-surgeons. Accessed February 11, 2018.

Chad M. Teven, MD, is a sixth-year resident in plastic and reconstructive surgery at the University of Chicago Medicine. He completed a clinical medical ethics fellowship and is currently a senior ethics fellow at the MacLean Center for Clinical Medical Ethics at the University of Chicago. Next year he will begin a fellowship in reconstructive microsurgery at Memorial Sloan Kettering Cancer Center.

Scott B. Grant, MD, MBioethics, is a board-certified general and endocrine surgeon with CareMount Medical. He obtained a master of bioethics degree from the University of Pennsylvania, completed a clinical medical ethics fellowship, and later served as a senior ethics fellow at the MacLean Center for Clinical Medical Ethics at the University of Chicago. He is the Resident and Associate Society liaison to the American College of Surgeons Committee on Ethics and a member of the Association for Academic Surgery Ethics Committee and has authored or co-authored a dozen articles and four book chapters, many on surgical ethics.

Related in the *AMA Journal of Ethics*
An Argument for Patient Autonomy in Elective Surgery, May 2010
Can Plastic Surgeons Maintain Professionalism within Social Media?, April 2018
Is the Surgery Necessary Now? The Surgeon's Conflict of Interest, July 2007

The Limits of Informed Consent for an Overwhelmed Patient: Clinicians' Role in Protecting Patients and Preventing Overwhelm, September 2016
Plastic Surgery Is Real, Not Reality TV, March 2007
When Is Advertising a Plastic Surgeon's Individual "Brand" Unethical?, April 2018

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 357-365

HEALTH LAW

Plastic Surgery Overseas: How Much Should a Physician Risk in the Pursuit of Higher-Quality Continuity of Care?

Scott Schweikart, JD, MBE

Abstract

In this article I discuss medical tourism, whereby patients go overseas for plastic surgery treatment in order to save money. However, if malpractice occurs abroad, there are several barriers that make it difficult for patients to recover damages. I explain these legal barriers and then discuss the possible causes of action patients can have over their "domestic physician" (their personal physician who might have referred surgery abroad or who gives postoperative follow-up care) and how these causes of action can create avenues of legal recovery not otherwise available. The possible liability of the domestic physician in the context of surgical malpractice abroad creates an ethical tension in the pursuit of higher-quality continuity of care, as the more involved the physician becomes in the process, the more likely he or she will assume liability.

Introduction

There is a growing trend for patients from higher-income countries such as the United States, Canada, the United Kingdom, and Australia to travel overseas to lower-income countries such as Mexico, Thailand, and India for medical treatment, notably for plastic or cosmetic surgery. This trend is often called "medical tourism" or, more recently "cross-border care." There are a number of drivers encouraging this trend, the most significant of which are patients seeking substantially lower costs abroad [1].

When patients become injured during surgery abroad, they often have few avenues of recourse. This article will explore the problems that patients injured abroad have in recovering malpractice claims while noting that, for domestic physicians who become involved, an ethical tension exists between fear of liability and the desire to provide continuity of care for patients who seek surgery overseas. In this article, I will focus on the United States and its law as the "domestic" country at issue, although much of the analysis is similar and applicable to other Western common-law countries.

Difficulty in Recovery

There is some debate about the severity of the risks of injury and malpractice in seeking surgical treatment abroad [2]. However, risks do exist, as they do with all surgeries, and injuries and malpractice do happen. Some of the risks of surgery abroad are infection, bloods clots while traveling, and obtaining proper follow-up care after surgery [3]. If an injury does occur from a surgical procedure abroad, legal recourse for the patient can be difficult to obtain.

Suing abroad. Normally, for most torts the case needs to be filed where the injury occurs [4]. Filing a complaint in the place of injury is always an option because the place of injury will naturally confer jurisdiction. In the current context, that would require the injured plaintiffs to file a complaint in the destination country after they have returned to their home country following surgical treatment.

However, many countries that are popular destinations for medical tourism have much less robust medical malpractice law and protections than exist in the United States. Thailand and India are two prime examples [5]. Hospitals in Bangkok require that patients waive their rights to sue doctors [6], and Thailand as a whole places significant limitations on medical malpractice awards and offers no compensation for pain and suffering [4, 5]. India also offers limited awards and no damages for pain and suffering, and India's court system has significant delays and an extremely low plaintiff success rate of about 5 percent [5, 7, 8].

Suing in the US. Even if a US plaintiff decides to sue an international surgeon for malpractice in a US court rather than in a court abroad, there are some notable barriers to successful recovery. The initial barrier is that of personal jurisdiction. A US court must have personal jurisdiction over the defendant for the case to proceed. Personal jurisdiction requires satisfaction of a long-arm statute and due process requirements of the US Constitution [6-8]. The Due Process Clause requires that the defendant have *minimum contacts* with the forum state (i.e., the location where the case is filed and jurisdiction is being sought) and that exercise of jurisdiction of the defendant in the forum state is consistent with notions of fair play and justice [6]. A long-arm statute is a codification of these due process principles that involves a minimum contacts inquiry and analysis. According to Cary Steklof, courts look at the "nature and quality of the defendant's contacts with the forum state, the quantity of those contacts, the relation of the cause of action to those contacts, the interest of the forum state in providing a forum for its residents, and the convenience of the parties" [9]. The typical case involves an international physician whose practice is solely conducted abroad without any contact or involvement with the United States. In such cases, "there are significant impediments to allowing a United States court to assert" jurisdiction over the international surgeon [9]. Minimum contacts requires "continuous and systematic" contacts, typically where the defendant has "longstanding business in the forum state, such as marketing or shipping

products, performing services, or maintaining one or more offices there" [10]. Only in rare circumstances would this standard be met for an international surgeon [6]. Therefore, personal jurisdiction over the international physician will not likely attach, and the case will not be able to proceed in the United States.

Assuming that a plaintiff can satisfy personal jurisdiction, the next hurdle is that of *forum non conveniens*. This legal doctrine gives the US court ability to dismiss the case if (1) jurisdiction is proper in another forum and (2) another forum is preferable after a multifactor balancing test that weighs the burden of the parties against the public interest [8]. I. Glenn Cohen asserts that the first factor "will likely be satisfied in many medical tourism cases, since the legal system of the destination country will often entertain a med-mal suit by a U.S. citizen treated in that country" [11]. As for the multifactor balancing test, some factors courts will consider are: "the relative ease of access to sources of proof; availability of compulsory process for attendance of unwilling, and the cost of obtaining attendance of willing, witnesses; possibility of view of premises" [12]; whether the plaintiff's "choice of an inconvenient forum, 'vex[es],' 'harass[es],' or 'oppress[es]' the defendant by inflicting upon him expense or trouble not necessary to his own right to pursue his remedy" [12]; the "[a]dministrative difficulties [that] follow for courts when litigation is piled up in congested centers instead of being handled at its origin"; and the "local interest in having localized controversies decided at home" [13]. In the context of the typical medical tourism case, these factors favor dismissal on *forum non conveniens* grounds [8].

Assuming that the American plaintiff can satisfy personal jurisdiction and *forum non conveniens*, there still remains the barrier of choice of law. The legal concept of *lex loci delicti*, which means law where the tort occurred [4], typically requires a court to apply the law of the jurisdiction where the tort occurred. This "choice of law" analysis weighs factors such as the place of injury and residence of the parties. Because of the typical factual circumstances, if a US plaintiff sues a physician who committed malpractice abroad, the US court would very likely apply the other country's law by default [8]. As discussed earlier, the nature of the destination country's law is often inadequate to properly redress a plaintiff's claim.

Even if a plaintiff prevails on a claim in a US court, there is the remaining burden of trying to enforce a judgment on an overseas defendant. Enforcement of a US judgment necessitates a court's willingness to enforce the judgment, and overseas courts regularly are not willing to enforce US judgments against their citizens for fear that US judgments are too large and punitive [8]. Indeed, many countries (even those with lots of traffic and revenue from medical tourism) will not entertain the notion of enforcing a US judgment absent a treaty [6].

Domestic Physician Liability

In response to these burdens, US plaintiffs and creative attorneys are looking for other avenues of recovery. Some avenues include suing domestic-based health maintenance organizations (HMOs), insurers, and intermediary firms that sponsor medical travel. Suing domestic physicians themselves is another option plaintiffs may choose. Domestic physicians, who participate in the medical tourism process by offering referrals or advice before surgery abroad or by offering postoperative follow-up care, are increasingly at risk of being liable and being sued for surgical malpractice that occurs overseas.

In cases in which a patient is injured by a surgeon abroad, claims (be they against the international surgeon or domestic physician) are supported typically by one of two theories of liability: medical negligence and informed consent. While similar, medical negligence and informed consent are distinct claims with independent rationales [14-16]. The domestic physician will not be liable for medical negligence for direct injuries sustained by the surgery abroad, as he or she was not the physician who performed the surgery. However, the domestic physician might potentially be liable for an informed consent claim via an expanded duty.

Medical negligence. A cause of action for medical malpractice under ordinary negligence requires: (1) a physician's duty of care to the plaintiff, (2) failure to meet the standard of care (breach of the duty), and (3) injury resulting from the failure to meet the standard of care [15]. This is the classical tort theory of negligence, which is most applicable to the surgeon abroad who directly causes injury via malpractice and, for the purpose of recovering damages, is therefore not applicable to the patient's domestic physician.

Informed consent. A cause of action for informed consent requires that: (1) the physician breach a duty to disclose a material risk, (2) a reasonable patient would more likely than not have opted not to undergo the procedure had she known of the risk, (3) the patient suffered injury because of her decision, and (4) the patient's injury was caused by the undisclosed risk [17]. This cause of action, by way of expanding the scope of a physician's duty, can possibly attach liability to a domestic physician who refers or advises a patient to travel. The source of the duty in informed consent is a fiduciary one between physician and patient [18]. Historically, and, in most jurisdictions, Philip Mirrer-Singer notes that "courts have been reluctant to apply the informed consent doctrine beyond the treating physician" [19], but some courts have been expanding the duty of informed consent to include those physicians who make a referral. Hawaii and New York courts take an approach that looks at the physician's "degree of control" over the treatment of the patient [20-22]. In *O'Neal vs Hammer*, the Supreme Court of Hawaii held that the "degree of participation or the retention of control by the referring physician may obligate the physician to secure informed consent from his or her patient" [21]. In *O'Neal*, degree of control was found because the primary physician created a multiphase treatment plan and coordinated all phases of the treatment, including a referral to, and

consultation with, the oral surgeon who actually performed the surgery [16]. North Dakota takes a more narrow approach and will only attach the duty of informed consent when the physician "formally orders" the procedure [20].

These cases show an opening, one that is being increasingly discussed, in how liability can attach to the domestic physician in the context of medical tourism [7, 23]. If the domestic physician refers a patient for surgery overseas, he or she potentially could be liable for lack of informed consent for a surgical procedure performed overseas. The facts of the case and the legal standard used will determine the physician's liability. Degree of control arguments are an emerging area of law with regard to physicians' liability, and they have yet to be applied to a case involving medical tourism. Hence the extent of the risk to the physician and how the law will apply to medical tourism is currently unclear. For example, if such arguments were successfully applied to medical tourism in the surgical context, expansion of the informed consent duty might require that the domestic physician fully understand and disclose various risks of treatments abroad, including the risks of certain surgical facilities and surgeons in other countries. In spite of these uncertainties, awareness of this risk of liability is necessary, as the nature of medical tourism opens the door to informed consent claims: overseas, risk communication is complicated and the risks might be poorly understood and possibly heightened [24]. Such an opening is an attractive solution to patients injured by surgery abroad, as the domestic physician and the tort are located in the United States, thus enabling the plaintiff to more easily sue and collect judgment in the United States, eliminating the recovery problems discussed earlier.

Postoperative liability. If the domestic physician only treats the medical tourist patient postoperatively (thus eliminating any potential informed consent liability), in theory he or she should not be at risk of medical malpractice liability for any tortious acts that occurred overseas. Under this scenario, if something goes wrong in the surgery overseas, domestic physicians are essentially detached from the tortious act. Despite this detachment, domestic physicians are, according to Kristen Boyle, often "reluctant to treat patients for postoperative care, due to resentment or reluctance to take clinical responsibility for surgery that was performed abroad" [25]. Similarly, Elizabeth Gluck asserts, "Due to legal liability, among other reasons, doctors are generally not eager to inherit problems created by other doctors" [26]. According to Jeremy Snyder et al., domestic physicians providing follow-up care "often have inadequate information about the procedure performed abroad. This situation also raises legal issues for doctors who are concerned they may be held responsible for post-operative complications" [27].

Domestic physicians have two concerns related to their fear of a postoperative medical malpractice suit. Their first concern is that they would actually be more likely to commit postoperative malpractice because they are dealing with prior complications with limited information. While such a malpractice suit would technically be for conduct that occurred

during postoperative follow-up treatment, their second concern is that they can end up indirectly paying for the damage caused overseas regardless of whether they were actually responsible for postoperative malpractice. With a postoperative injured patient, the judge or jury must decide how much damage was caused during the initial overseas surgery and how much damage was caused postoperatively. Parsing such damage can be difficult to do with accuracy because causal linkages between injury and follow-up care and between injury and international care are not always clearly delineated. It is easy to envision the domestic physician being required to pay for some damage that he or she did not actually commit.

Domestic physicians in this scenario are not officially liable for medical malpractice committed overseas. However, they are in essence acting as proxies for overseas physicians who commit malpractice, particularly if they are managing follow-up care in a domestic setting; they might find themselves being the ones to pay for damage inflicted overseas (even if they didn't care for the patient overseas). This scenario, in an ideal sense, should not occur, as it runs afoul of justice. However, such injustices in the application of the law can occur, and the risk, which is difficult to quantify with precision because of its nebulous character, is one that physicians must weigh.

Conflict with Continuity of Care

As the trend increases for patients from higher-income countries to go overseas for surgery, there has been greater emphasis on the quality of the continuity of care between the domestic country and the country abroad. As Ian Cheung and Anthony Wilson explain:

> The issue of continuity of care is important. The surgery itself should be seen as one of many components in the patient's overall care. Other elements include the initial consultations, optimisation of non-surgical treatment, preoperative education programs, postoperative hospital and home rehabilitation, and long-term follow-up. The better coordinated these elements are, the more streamlined the patient's overall care will be [28].

Research indicates that physicians are aware of both the need for and the barriers to providing continuity of care. A survey of domestic physicians found that respondents believe that medical tourism does threaten continuity of care, as the flow of information is disrupted before patients' travel when patients omit or fail to discuss travel plans with their physician [29]. With greater communication of the risks and benefits of surgery at facilities overseas, physicians could help reduce risks and provide greater continuity of care for their patients who go abroad for surgery [29]. However, Valorie Crooks et al.'s focus-group study found that though domestic physicians desire to give their patients useful information to help them "make an informed decision" about obtaining treatment abroad, they prefer not to "take on significant responsibility in the decision-making

process" [30], thereby avoiding a greater scope of fiduciary duty that brings with it a heightened risk of liability.

Domestic physicians can completely insulate themselves from these risks of liability by having zero interaction with the patient before and after the surgical procedure abroad. Zero interaction provides full protection from liability, as it means that the domestic physician would have provided no referrals, recommendations, advice, or postoperative care. Without any referrals, recommendations, or advice about treatment overseas, legal degree of control arguments become void. Additionally, a lack of interaction postsurgery removes any risks of treating patients with postoperative complications. This insulation from liability, attractive from the physician's perspective, encourages a breakdown in the continuity of care. Under this scenario, the overseas surgery becomes an isolated event and, according to Cheung and Wilson, "isolating the surgical component from the overall management plan may not be advantageous to the patient" [31]. Conversely, the more interaction the physician has before and after the procedure, the more risk of liability the physician assumes, but the higher will be the quality of the patient's care throughout the entire process, which presumably is better for the patient.

Conclusion

Former professor of plastic surgery Nahum Ben-Hur asks, "How much risk should a physician take for the benefit of his patient?" [32]. This philosophical question goes to the heart of the ethical tension in the matter of medical tourism. The more a physician chooses to involve herself with a patient's care overseas, the more likely liability will attach. There is thus incentive for the physician to distance herself from referral or follow-up regarding her patient's surgery abroad. However, the more the physician is involved, the more likely it is that there will be a better medical outcome for the patient.

References

1. Underwood HR, Makadon HJ. Medical Tourism: Game-changing innovation or passing fad? *Healthc Financ Manage*. 2010;64(9):112-114, 116, 118.
2. Turner L. New media reports of patient deaths following "medical tourism" for cosmetic surgery and bariatric surgery. *Dev World Bioeth*. 2012;12(1):21-34.
3. Snyder J, Crooks V, Johnston R, Kingsbury P. Beyond sun, sand, and stitches: assigning responsibility for the harms of medical tourism. *Bioethics*. 2013;27(5):233-242.
4. Kassim PN. Medicine beyond borders: the legal and ethical challenges. *Med Law*. 2009;28(3):439-450.
5. Cortez N. Recalibrating the legal risks of cross-border health care. *Yale J Health Policy Law Ethics*. 2010;10(1):1-89.
6. Steklof CD. Medical tourism and the legal impediments to recovery in cases of medical malpractice. *Wash Univ Glob Stud Law Rev*. 2010;9(4):721-742.

7. Howze KS. Medical tourism: symptom or cure? *Georgia Law Rev*. 2007;41(3):1013-1052.
8. Cohen IG. Protecting patients with passports: medical tourism and the patient-protective argument. *Iowa Law Rev*. 2010;95(5):1467-1567.
9. Steklof, 730.
10. Steklof, 731
11. Cohen, 1499.
12. *Gulf Oil Corp v Gilbert*, 330 US 501, 508 (1947). Quoted by: Cohen, 1500.
13. *Gulf Oil Corp v Gilbert*, 330 US 501, 508 (1947). Quoted by: Cohen, 1501.
14. *McQuitty v Spangler*, 976 A2d 1020 (Md Ct App 2009).
15. *Spar v Cha*, 907 NE2d 974 (Ind 2009).
16. *Gomez v Sauerwein*, 180 Wash2d 610, 331 P3d 19 (2014).
17. Sawicki NN. Modernizing informed consent: expanding the boundaries of materiality. *Univ Ill Law Rev.* 2016;3:821-871.
18. Louisell DW, Williams H, Ohlsson GL. *Medical Malpractice*. Vol 4. New York, NY: Matthew Bender; 2017.
19. Mirrer-Singer P. Medical malpractice overseas: the legal uncertainty surrounding medical tourism. *Law Contemp Probl*. 2007;70(2):217.
20. *Koapke v Herfendal*, 2003 ND 64, 660 NW2d 206 (2003).
21. *O'Neal v Hammer*, 87 Haw 183, 953 P2d 561 (1998).
22. *Bynum v Magno*, 125 F Supp 2d 1249 (D Haw 2000).
23. Cohen IG. How to regulate medical tourism (and why it matters for bioethics). *Dev World Bioeth*. 2012;12(1):9-20.
24. Penney K, Snyder J, Crooks, VA, Johnston R. Risk communication and informed consent in the medical tourism industry: A thematic content analysis of Canadian broker websites. *BMC Med Ethics*. 2011;12:17. https://bmcmedethics.biomedcentral.com/articles/10.1186/1472-6939-12-17. Accessed December 7, 2017.
25. Boyle K. A permanent vacation: evaluating medical tourism's place in the United States healthcare system. *Health Lawyer.* 2008;20(5):45.
26. Gluck E. "Incredible (accreditable) India": trends in hospital accreditation coexistent with the growth of medical tourism in India. *St Louis U J Health Law Policy*. 2008;1:490.
27. Snyder, Crooks, Johnston, Kingsbury, 235.
28. Cheung IK, Wilson A. Arthroplasty tourism. *Med J Aust.* 2007;187(11):666-667.
29. Johnston R, Crooks VA, Snyder J, Dharamsi S. Canadian family doctors' roles and responsibilities toward outbound medical tourists: "our true role is … within the confines of our system." *Can Fam Physician*. 2013;59(12):1314-1319.
30. Crooks VA, Li N, Snyder J, et al. "You don't want to lose that trust that you've built with this patient…": (dis)trust, medical tourism, and the Canadian family physician-patient relationship. *BMC Fam Pract*. 2015;16:25.

https://bmcfampract.biomedcentral.com/articles/10.1186/s12875-015-0245-6. Accessed December 7, 2017.
31. Cheung, Wilson, 667.
32. Golan J, Ben-Hur N. Informed consent in plastic surgery. *Med Law*. 1983;2(2):114.

Scott Schweikart, JD, MBE, is a senior research associate for the American Medical Association Council on Ethical and Judicial Affairs in Chicago, where he is also the legal editor for the *AMA Journal of Ethics*. Previously, he worked as an attorney editor and reference attorney at Thomson Reuters and practiced law in Chicago. Mr. Schweikart earned his master of bioethics degree from the University of Pennsylvania and his law degree from Case Western Reserve University. He has research interests in health law, health policy, and bioethics, particularly reproductive ethics.

Related in the *AMA Journal of Ethics*
Difficult Patient-Physician Relationships and the Risk of Medical Malpractice Litigation, March 2009
Dilemmas in End-of-Life Decision Making for the Medical Tourist Patient, August 2009
Lack of Standardized Informed Consent Practices and Medical Malpractice, February 2014
Liability Considerations for Physician Volunteers in the U.S., March 2010
Transplant Tourism: Treating Patients when They Return to the U.S., May 2008

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 366-371

MEDICINE AND SOCIETY

What Should Be the Role of Plastic Surgeons in Nonanatomic Breast Reconstruction, including Tattooing?

Jeffrey H. Kozlow, MD, MS

Abstract

The goal of plastic surgeons performing postmastectomy anatomic reconstruction is to create a breast structure that closely matches the shape and appearance of a patient's native breast. Tattoo artists have helped improve outcomes with nipple-areolar tattooing. Some patients now prefer to have more extensive, nonanatomic designs to help camouflage their scars. Two questions are considered here: What role should plastic surgeons have in supporting or performing nonanatomic reconstruction? And should insurance programs cover nonanatomic breast reconstruction options?

Introduction

For many plastic surgeons, breast reconstruction is the most common procedure in their practices. Over 300,000 women were diagnosed with breast cancer or in-situ disease in 2017, with many of those patients undergoing either partial or total mastectomy [1]. On an annual basis, over 100,000 breast reconstruction procedures are performed by members of the American Society of Plastic Surgeons [2]. Following passage of the Women's Health and Cancer Rights Act in 1998, all group plan insurers who covered mastectomies were also required to cover postmastectomy breast reconstruction [3]. Multiple large studies have demonstrated the health benefits of postmastectomy breast reconstruction, including physical, psychosocial, and sexual well-being, for women with breast cancer [4].

Fundamentally, the goal in breast reconstruction is to recreate a breast that has a "normal" appearance. The use of "normal" here reflects the wide variation that exists in natural breast shape and size, but it also indicates that the shape and form of a particular woman's breast would still be reconstructed to be within the bell curve of native breast anatomy. If it is the patient's wish, it would be ideal to recreate the exact same shape, size, and contours of her breasts that existed prior to cancer treatment. However, the limitations of breast reconstruction techniques makes meeting a standard of normal shape the end goal, even if that shape is not the patient's exact previous shape. Depending on the specific surgical technique, women can have some choice in the

subsequent size and shape of the breast, although this choice is not guaranteed and still must be within the normal range of breast shape and size.

Nipple-Areolar Tattooing

Women interested in postmastectomy breast reconstruction usually have three options—external prosthesis, implant-based reconstruction, or autologous reconstruction via transfer of adipose tissue from another area of their body. Many patients have removal of the nipple-areolar complex as part of the mastectomy and thus nipple reconstruction is often the final stage of reconstruction after completion of the breast mound. This is frequently done by using local tissue to create a papule followed by areolar tattooing to provide the darker pigment seen in the native breast. Most areolar tattooing is done in the plastic surgeon's office by either the physician or a physician extender. Figure 1 demonstrates a completed bilateral breast reconstruction using transplanted tissue from the patient's lower abdomen followed by papule reconstruction and areolar tattooing.

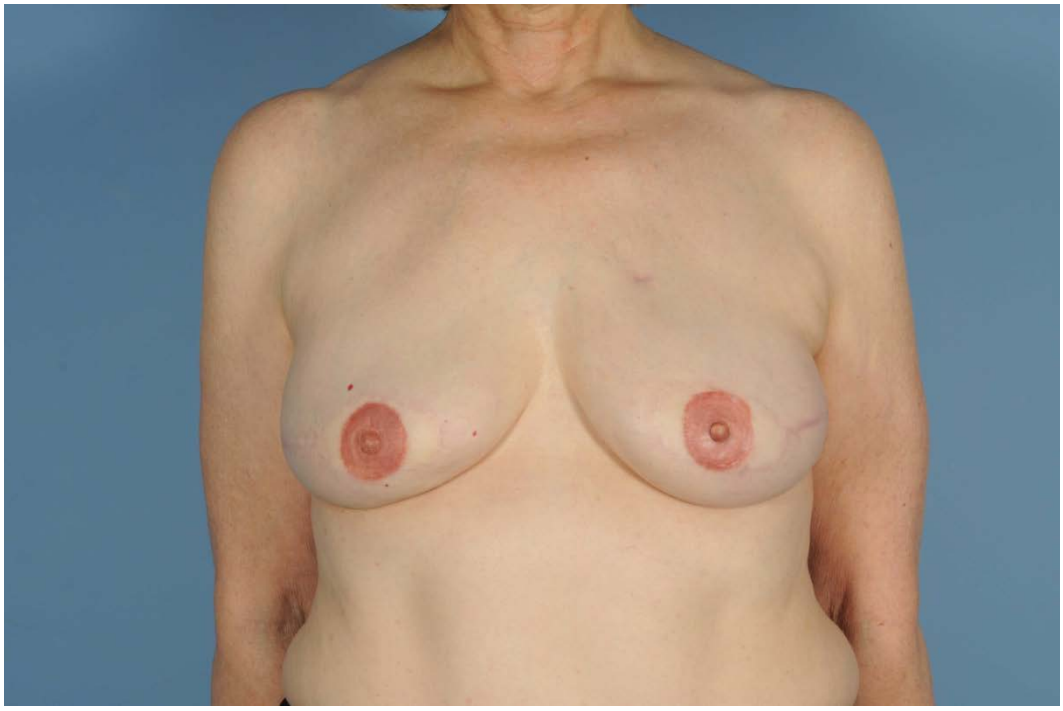


Figure 1. *Postmastectomy Breast Reconstruction with Bilateral Autologous Tissue, Nipple Reconstruction, and Areolar Tattooing*. Photo: Jeffrey H. Kozlow.

Thankfully, plastic surgeons are not alone in trying to provide the best outcomes for their patients. Within the last ten years, professional tattoo artists in our local communities have played an increasing role in nipple-areolar tattooing, including the use of 3-D tattoos to give the appearance of a papule without the need for a surgical procedure. This movement, led by Vinnie Myers, a tattoo artist in Baltimore, has now been embraced by professional tattoo artists in almost every major city, providing our patients

with another option for nipple reconstruction [5]. Traditionally, these tattoo artists have relied on patients seeking out their tattooing services, but increasingly plastic surgeons are referring patients directly. Importantly, nipple-areolar tattoos are done to recreate the appearance of an individualized but anatomically normal nipple-areolar complex, and they do so in an amazing fashion.

Tattooing as an Alternative to Surgical Breast Reconstruction

Not every woman who undergoes surgical treatment for breast cancer is interested in formal breast reconstruction. Some women who undergo mastectomy are not interested in breast reconstruction based on their own personal choices and values. Other women might undergo breast mound reconstruction only and forego nipple areolar reconstruction. There are also women who undergo breast conservation therapy (BCT), a combination of surgical lumpectomy and radiation therapy, instead of mastectomy. This treatment can often lead to both subtle and significant deformities of the treated breast. Regardless, all of these women are left with surgical scars that can be a frequent reminder of their personal battle with breast cancer.

Some women have turned to artistic tattooing to help camouflage their scars while others have decided to go further and turn their chest into an art canvas. The ability of professional tattoo artists to provide another option for our breast cancer patients has been highlighted in both social media and a recent article published in the *Journal of the American Medical Association* (*JAMA*) by tattoo artist David Allen [6]. Movements such as P.ink highlight that nonanatomic tattooing can provide some women a therapeutic option that differs from surgical breast reconstruction [7]. And though there is no formal study on patient reported outcomes, I have no reason to doubt that, for the women who seek it out, this type of tattooing has a positive impact on their quality of life, self-confidence, and body image. With regard to nonanatomic tattooing as an option for our patients, I do think it is important that we are aware of this type of work and that for some patients it may be what best suits them. Just as most surgeons discuss an external prosthesis as an option for breast mound reconstruction, I think it is important that we be aware of camouflage tattooing and supportive of those patients who opt for it.

Ethical Issues in Nonanatomic Breast Reconstruction

The topic of breast reconstruction generates two potential ethical questions for plastic surgeons. The first question is whether plastic surgeons should perform procedures aimed at producing results that are not congruent with the typical appearance of a normal breast. Fundamentally, the goal of any reconstructive procedure is to recreate as close to normal anatomy and function as possible regardless of the site or etiology of the defect. While there may be fringe examples of surgeons who will perform nonanatomic reconstructive surgical procedures that produce results well outside the range of normal anatomy, these would be rare individual surgeons. Despite what can be seen on television, the vast majority of board-certified plastic surgeons will not perform

procedures that create abnormal anatomy even under the guise of "cosmetic surgery." I personally believe that almost all board-certified plastic and reconstructive surgeons would find it unethical to create abnormal anatomy unless for specific functional reasons. This fundamental principle is a critical component of what makes our work medically necessary and is integral to the care of many patients. We all occasionally get atypical patient requests regarding their goals for breast reconstruction. Some of these requests, such as placing multiple implants in the same breast or inflating implants beyond manufacturing limits, are not surgically safe [8]. Others, such as requests for breast reconstruction in areas outside of the anterior chest or axillary nipple position or for the use of nonanatomic shaped implants, can raise concerns about unrealistic patient expectations for breast reconstruction or potential mental health problems. I can understand how patients who make a minor request—for example, for a heart-shaped areola instead of a circular areola—might find this a subtle therapeutic or "fun" way to deal with their breast cancer diagnosis. Accepting these women's request as a unique way to deal with their breast cancer diagnosis and accepting the rationale behind their request seem logical.

However, I personally still decline to perform any form of nonanatomic breast reconstruction procedures, as I believe that doing something slightly different becomes a slippery slope to creating abnormal anatomy. Thus, for professional consistency, I believe that reconstructive surgeons should only be performing breast reconstruction procedures aimed at restoring either the patient's premastectomy anatomy or, in cases where this is not technically possible, anatomy that would otherwise be consistent with normal breast anatomy in terms of size, shape, and nipple-areolar appearance. Reconstructive surgeons can also refer patients to individuals or services that provide alternatives to surgical breast reconstruction such as camouflage tattooing. However, failure to inform a patient of these alternative options does not constitute a breach in duty given that camouflage tattooing is not considered a current standard of care.

The second, similar question is whether insurance plans should cover alternatives to reconstruction of the typical appearance of a normal breast, including nonanatomic tattoos. Some insurance plans will cover professional, anatomic nipple-areolar tattooing performed outside of a physician's office, although it depends on the insurer and the explanation of benefits. In my experience, many women have found securing insurance coverage for anatomic nipple-areolar tattooing outside of a physician's office to be a challenging endeavor. I believe that the same ethical requirement on physicians to perform only anatomic reconstructions should apply to insurers' considerations of which procedures to cover and why. It is important to recognize that breast reconstruction patients are not the only patients who might choose to get a nonanatomic tattoo. People might get a tattoo for therapeutic reasons, including remembrance of a death, celebration of overcoming an obstacle in life, or camouflaging of a traumatic injury. Despite the benefits, many people might not expect insurance coverage of the tattooing

procedure for any of these valid therapeutic reasons since it is not intended to restore normal anatomy. The view for which I argue here—that nonanatomic tattooing should not be covered by insurance—seems consistent with those expectations.

Plastic and reconstructive surgeons frequently have to decide when requests for surgery are for functional versus aesthetic indications. Admittedly, the line between the two is not always clear and opinions rightly vary. For example, when is a congenital breast asymmetry significant enough to be considered reconstructive rather than aesthetic? When is a scar unfavorable enough to warrant scar revision? Or when is extra abdominal skin following weight loss a functional impairment? For each surgical request, the decision is made from a professional standpoint and, when applicable, should conform to what insurers prescribe within the explanation of benefits to a patient. Performing surgery for aesthetic reasons is still ethical, but it is important to be clear about the aesthetic indication and, if expecting reimbursement from insurance, to ensure that it meets the necessary requirements of a given plan.

Conclusion

I applaud the work of the tattoo artists who are helping women in their personal journeys through breast cancer treatment and recovery. Whether it is a 3-D nipple-areolar tattoo or more extensive tattooing to hide the scars from breast cancer, I believe that the work is good and that patients are benefitting from the procedures. I believe that our patients have the autonomy to choose to undergo those interventions that they believe will be most beneficial to them. However, we professions must also retain consistency in our goals of reconstruction to restore normal anatomic structures or function, especially when the responsibility for payment is a public or private insurance plan.

References

1. American Cancer Society. Breast cancer facts and figures 2017-2018. https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/breast-cancer-facts-and-figures/breast-cancer-facts-and-figures-2017-2018.pdf. Published 2017. Accessed January 2, 2018.
2. American Society of Plastic Surgeons. 2016 Plastic surgery statistics report. https://www.plasticsurgery.org/documents/News/Statistics/2016/plastic-surgery-statistics-full-report-2016.pdf. Accessed January 2, 2018.
3. Centers for Medicare and Medicaid Services. Women's Health Care Rights Act (WHCRA). https://www.cms.gov/CCIIO/Programs-and-Initiatives/Other-Insurance-Protections/whcra_factsheet.html. Accessed February 2, 2018.
4. Platt J, Zhong T. Patient-centered breast reconstruction based on health-related quality-of-life evidence. *Clin Plast Surg*. 2018;45(1):137-143.
5. Allen D. Moving the needle on recovery from breast cancer: the healing role of postmastectomy tattoos. *JAMA*. 2017;317(7):672-674.

6. Halvorson EG, Cormican M, West ME, Myers V. Three-dimensional nipple-areola tattooing: a new technique with superior results. *Plast Reconstr Surg*. 2014;133(5):1073-1075.
7. P.ink website. http://p-ink.org/. Accessed January 19, 2018.
8. Mentor®. Saline-filled and SPECTRUM™ breast implants. http://www.mentorwwllc.com/Documents/SalineSpectrumPIDS.pdf. Revised May 2015. Accessed January 19, 2018.

Jeffrey H. Kozlow, MD, MS, is a clinical associate professor of plastic and reconstructive surgery at the University of Michigan Medical School in Ann Arbor. His clinical practice is focused on reconstructive microsurgery and oncologic reconstruction including postmastectomy breast reconstruction.

Related in the *AMA Journal of Ethics*

An Argument for Patient Autonomy in Elective Surgery, May 2010
How Tattoos Can Complement Breast Reconstruction, April 2018
The Importance of Quality of Life to Patient Decision Making in Breast Cancer Care, February 2014
Should Doctors Perform Plastic Surgery on Reality TV?, March 2007

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 372-378

MEDICINE AND SOCIETY

When Is Advertising a Plastic Surgeon's Individual "Brand" Unethical?

Carly P. Smith, PhD, and Daniel George, PhD

Abstract

Advertising a plastic surgery practice on social media is fraught with both practical and ethical challenges. We use an *institutional betrayal* framework to explore the range of potential harms to patient well-being while also considering the pitfalls of social media activity, especially marketing, for practitioners. We also give consideration to the relative benefits that such online patient-clinician relationships can provide. In our analysis, we draw on specific examples of plastic surgery procedures prominently featured on social media, including the Vampire Facelift®.

Narrative of a "Vampire" Patient

J was scrolling through social media during a lunch break and stopped at a post of side-by-side pictures of a woman's face labeled "Before and After," with the latter photo showing the woman's skin looking smoother and more luminous. But the caption was what really caught J's attention: "Kim Kardashian's Anti-Aging Secret: the Vampire Facelift®!" The post had been shared by a friend who J knew loved the Kardashian celebrity empire, but the original picture had been posted by a fancy downtown spa.

J had recently been considering some sort of cosmetic procedure. J thought he looked tired, even after a full night's sleep, and was worried about the effect that years of running outside in the sun had inscribed on his face. Every day, he experienced some version of the thought that he didn't look as young as his 42 years. J clicked on the page of the spa and noticed it had recently published several posts about the technology and science behind the procedure. J looked at several illustrations that showed the procedure: a minor blood draw, a centrifuge machine, and tiny facial injections. There were even videos made by a cosmetic surgeon, Dr. A, who explained how the Vampire Facelift worked. She spoke casually, joking about the spooky name that arose from the use of patients' own plasma, which was injected with microneedles to stimulate the skin's own regenerative properties. She then described the medical technology that made the procedure effective and the healing process quick.

Dr. A seemed warm and knowledgeable; J felt growing comfort that she personally cared about the safety of the procedure. While it all sounded a little weird, J relied upon Dr. A as a certified plastic surgeon who seemed confidently to emphasize that the procedure was

based on the latest evidence-based scientific innovations. Later that night, he went back to the social media page and read comments on all the posts; they uniformly conveyed positive experiences about this procedure, and some offered rave reviews of Dr. A's skill and persona and even posted pictures of postprocedure results. J noticed some common friends among those who had commented. The procedure seemed low risk, and there was even a special going on through the month of October—a "Halloween sale" for the Vampire Facelift. J took a deep breath and called the spa clinic to make an appointment.

Practical and Ethical Considerations of Implying Brand Innovation on Social Media

As we see in the above vignette, advertising via social media allows patients to develop a personal connection to a practice before they enter the physician's office. Many patients take advantage of this source of information; indeed, one study found that 70 percent of people seeking to inform themselves about plastic surgery abroad relied on the internet as their main source of information and also cited the quality of the surgeon's website as the most powerful influence on their choice of plastic surgeon [1]. Although an online "relationship" can help foster rapport by building a sense of familiarity or even trust before an in-person meeting, as we see above, it can also disrupt the normal "cautious consumer" behavior and decision making of prospective patients. Patients' general trust in medicine or in the reputation of a specific practice can extend to unknown physicians, allowing patients to overlook a lack of specific information about these physicians' trustworthiness or competence [2]. Indeed, a recent survey of US plastic surgery practices' websites found that only 40 percent describe potential complications of procedures [1]. When this trust is not borne out—when the procedure does not live up to heightened expectations or complications arise—patients can feel betrayed not just by the physician but by the "brand" the physician has built (and even by the field of plastic surgery writ large)—a phenomenon recognized as *institutional betrayal* [2-4]. Thus, it behooves physicians to consider the likely effect of common social media practices through an ethical lens.

In this paper, we will discuss the ethical issues introduced in the vignette and how they are uniquely heightened in the context of social media advertising and branding. Throughout, we focus on the added complication of protecting patients' trust in this new landscape: how it can be built, maintained, or "institutionally betrayed" by unethical social media practices.

Potential for Deception in Social Media Advertising

At present, there are no restrictions on advertising in medicine except when it can be specifically justified as necessary to protect the public from deceptive (i.e., intentionally misleading) practices [5]. That deception rather than mere inaccuracy (i.e., inadvertent misinformation) is the crux of this ethical guideline illustrates the need to protect patients' trust given the imbalance of power and knowledge in the patient-physician relationship. As the case example above illustrates, deceptive advertising restrictions can

become quite ambiguous in a social media environment, and J's social media research exposes him to at least two potentially deceptive practices.

The first is presenting the Vampire Facelift treatment as an innovative and exclusive procedure through description, capitalization, and use of a trademark. Given ethical imperatives to share medical advances [5], it is unlikely that Dr. A is the only plastic surgeon offering this type of treatment. However, she uses branding techniques to suggest that the treatment is exclusive and thus potentially scarce, particularly by referring to the "latest" technology and calling the treatment a celebrity's "anti-aging secret." Invoking the image of a beautiful celebrity to drive demand for a surgical procedure can create a particular type of vulnerability for patients. Besides unfairly anchoring patient expectations in the idealized image of a global celebrity, the message that patients' appearance is damaged and can only be repaired by experts using highly specialized techniques means that patients who internalize that message start to evaluate the work of those experts from a disempowered position. Feminist scholarship has described this dynamic as *infiltrated consciousness*, the idea that a member of an oppressed group "endorses, as part of her self-concept, a dominant group's dismissive or exploitative understanding of her group, and loses or fails to acquire a sense of herself as worthy of full moral respect" [6]. In the context of social media, such a notion can deepen our understanding of why it is problematic that prospective patients are subjected to plastic surgeons' social media advertising premised on fixing "damaged identities" [6], as expressed in their appearance.

The second potentially deceptive practice in this case relates to the public testimonials that assure a particular outcome. J was swayed by the uniformity of the opinions expressed on the spa's social media page. Personal endorsement is a powerful influencer of human behavior [1], and it can be leveraged to deceptive effect on social media. The AMA *Code of Medical Ethics* stipulates that testimonials of patients as to a physician's skill or the quality of his or her professional services should "reflect the results that patients with conditions comparable to the testimoniant's condition generally receive" [5]. However, on social media, comments and testimonials can be carefully curated; negative comments can be removed surreptitiously and people can be asked, persuaded, coerced, or otherwise incentivized (perhaps even paid) to leave positive comments. Increasingly, medical institutions are hiring administrative personnel to manage institutional social media accounts [7]. This practice can lead not only to inaccurate or deceptive curation of user comments but also to improper interactions with patients (e.g., inadvertently revealing private health information [1]).

How Social Media Can Facilitate Institutional Betrayal

Patients seeking information about a surgical procedure are exposed to social media practices used to create "branded" accounts (i.e., those replete with compelling posts, pictures, and videos showing a means to accomplish a dearly desired outcome). In J's

case, a well-captioned picture caught his attention, and he was swayed by multiple sources of information on one of the spa's social media pages. Brands build and sustain trust by increasing consumers' perceived product knowledge (including effectiveness and value) [8] and by their representatives being "responsive" to consumers (e.g., replying to comments, following up with complaints, and checking on customer satisfaction) [9]. Social media might inflate prospective patients' sense of their knowledge of or confidence about a given procedure (via videos, simplistic infographics, others' testimonies, assurances from operating team, and so on) while not *actually* increasing their understanding of how the procedure would work for them or the risks involved. Such practices create the conditions under which patients are more likely to be exposed to harm without their knowledge of this increased risk and are antecedent to institutional betrayal.

Moreover, social media can create a false sense of familiarity for prospective patients like James, who build their trust in a practice's or physician's brand based on cues usually reserved for a patient-physician relationship. These include perceptions of a physician's competency and fiduciary responsibility (i.e., protecting the patient's best interests), which are usually based on observable behaviors that occur within an existing relationship [3, 10]. In contrast to relying on their interactions with physicians for relevant cues, prospective patients look to online reviews to infer the trustworthiness of physicians (as J did), and these selectively presented reviews tend to skew positive for plastic surgeons and increase patient perceptions of their competence [11]. Even if reviews are mixed, patients in a vulnerable state may be inclined to cherry-pick positive comments, effectively seeing what they want to see, especially in informal media that encourage rapid consumption of massive amounts of visual, textual, and other data.

Patients can feel betrayed if something goes wrong or if the procedure simply isn't as effective or seamless as they had hoped (both common precursors to lawsuits) [12]. However, because their relationship with a surgeon known mainly through social media is not actually close, this betrayal can manifest in potentially harmful and difficult-to-resolve ways—e.g., withdrawing from follow-up care, negative social media engagement, or self-recrimination [12].

Risks and Benefits of Connecting with Patients Online

Risks. Prospective patients who are, like J, distressed due to dissatisfaction with their bodies and seeking help from a place of vulnerability might develop a sense of trust in a physician or medical practice based on a false intimacy that can occur on social media [13]. Patients might look to signals of competency such as describing oneself as a "cosmetic surgeon," providing sanguine testimonials from previous patients, associating one's work with a celebrity, promoting "exclusive" practices, using scientific language or images to communicate the precision or effectiveness of a procedure, curating a sizable online following, or demonstrating a particular charm or charisma in online postings.

Indeed, stylistic and aesthetic factors extraneous to medical practice (e.g., how well-made the social media account page appears or how familiar the platform is to the user [13]) can contribute to trust, thus serving as potential factors in retrospective feelings of betrayal. This trust, combined with signals about the scientific rigor of "innovative" treatments and access to videos or other materials that show portions of a procedure or before-and-after pictures, might lead prospective patients to undertake a procedure with inflated expectations, setting up both patient and physician for the difficult task of managing disappointment.

Benefits. Physicians productively engaging with patients on social media (e.g., honestly and openly answering questions, sharing success stories with patient permission) can be a powerful way of transparently demonstrating how a practice does medicine and what reasonable expectations might be associated with particular clinical treatments. A social media account can offer a physician a means of serving as a thought leader and of offering and disseminating information about prevention, self-care, and so on to a wider audience, irrespective of whether the consumers of that information eventually become paying consumers of services. It can also be used to counter nonevidence-based advertisements, debunk sham science, or share new scientific innovations along with contextual information. For instance, in the vignette above, Dr. A could use her engaging video presence to explain the risks and benefits of different procedures or even to share scientific information that does not directly benefit her business. One real-life example of this approach is how a plastic and reconstructive surgeon in Atlanta uses social media to share research and education materials on different procedures, advice on how to know if a procedure or surgeon is right for a particular patient, and information on the intersection between plastic surgery and other areas of medicine (e.g., reconstructive breast surgery following a mastectomy) [14]. The main goal of these videos is to objectively educate followers rather than generate business.

Conclusion

Having become a nearly ubiquitous global presence within the past decade, social media is a problematic new ecosystem that can foster deceptive professional behavior. It exists outside the internally protected confines of the peer-reviewed literature; lacks institutional or other regulatory oversight; encourages informality; and provides a format that makes allowances for hype, hyperbole, and valorization of style over substance that don't mesh well with the highly regimented standards of medical practice and can create false expectations for viewers. Many lay users of social media might lack the capacity for critical appraisal of medical claims about true innovation and effectiveness, particularly those who are vulnerable and seeking out answers they want to find. Such users bring credulity, trustworthiness, and hope to the social media presence of medical clinicians, particularly when there is a carefully curated professional presentation, as in the case above.

Emerging generations of patients are likely to continue seeking out social media platforms for health information and a sense of deeper connection to their clinicians [15]. Although they are likely to be social media savvy, both they and physicians are susceptible to traps related to the quest for human connection in a digital world. With caution and probity, the platform afforded by social media can be used to elevate and protect the science of plastic surgery and safeguard the trust of patients.

References

1. Nassab R, Navsaria H, Myers S, Frame J. Online marketing strategies of plastic surgeons and clinics: a comparative study of the United Kingdom and the United States. *Aesthet Surg J*. 2011;31(5):566–571.
2. Mechanic D. The functions and limitations of trust in the provision of medical care. *J Health Polit Policy Law*. 1998;23(4):661–686.
3. Smith CP. First, do no harm: institutional betrayal and trust in health care organizations. *J Multidiscip Healthc*. 2017;10:133-144.
4. Smith CP, Freyd JJ. Institutional betrayal. *Am Psychol*. 2014;69(6):575-587.
5. American Medical Association. Opinion 9.6.1 Advertising and publicity. *Code of Medical Ethics*. https://www.ama-assn.org/delivering-care/advertising-publicity. Accessed February 23, 2018.
6. Lindemann H. *Damaged Identities, Narrative Repair*. Ithaca, NY: Cornell University Press; 2001:xii.
7. George DR, Kime L, Riley T. How are healthcare institutions using Facebook to interact with online communities? Results from a case study in Central Pennsylvania. *J Hosp Admin*. 2015;4(3):89-92.
8. Habibi MR, Laroche M, Richard M. The roles of brand community and community engagement in building brand trust on social media. *Comput Human Behav*. 2014;37:152-161.
9. Laroche M, Habibi MR, Richard M, Sankaranarayanan R. The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty. *Comput Human Behav*. 2012;28(5):1755-1767.
10. Mollborn S, Stepanikova I, Cook KS. Delayed care and unmet needs among health care system users: When does fiduciary trust in a physician matter? *Health Serv Res*. 2005;40(6)(pt 1):1898-1917.
11. Wogalter MS, Mayhorn CB. Trusting the internet: cues affecting perceived credibility. *Int J Technol Hum Interact*. 2008;4(1):75-93.
12. Menon AV. Do online reviews diminish physician authority? The case of cosmetic surgery in the US. *Soc Sci Med*. 2017;181:1-8.
13. Gorney M. Ten years' experience in aesthetic surgery malpractice claims. *Aesthet Surg J*. 2001;21(6):569-571.
14. Facebook. Allyson Maske, MD—plastic and reconstructive surgeon. https://www.facebook.com/DrAllysonMaske/. Accessed November 16, 2017.

15. Lober WB, Flowers JL. Consumer empowerment in health care amid the internet and social media. *Semin Oncol Nurs*. 2011;27(3):169-182.

Carly P. Smith, PhD, is a clinical psychologist and assistant professor of humanities and psychiatry at Penn State College of Medicine in Hershey, Pennsylvania. She studies trust in health care institutions and how institutional responses to adverse events can break or protect trust.

Daniel George, PhD, is an associate professor of humanities at Penn State College of Medicine in Hershey, Pennsylvania. He studies Alzheimer's disease and is also interested in the ethical implications of social media in medicine.

Related in the *AMA Journal of Ethics*

Advertising Cosmetic Surgery, May 2010
Can Plastic Surgeons Maintain Professionalism within Social Media?, April 2018
How Navigating Uncertainty Motivates Trust in Medicine, April 2017
The "Mommy Makeover" Package, May 2010
Plastic Surgery's Contributions to Surgical Ethics, April 2018

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 379-383

MEDICINE AND SOCIETY

Can Plastic Surgeons Maintain Professionalism within Social Media?

Pablo L. Gutierrez and Debra J. Johnson, MD

Abstract

Plastic surgeons have evolved their methods of reaching potential patients by using various forms of social media. Such platforms can educate, inform, and, for some, entertain. Social media now allows consumers to compare themselves to a much wider, if not global, set of peers that might further exacerbate their anxiety regarding their appearance. Plastic surgeons should ensure that use of patient images does not violate privacy or create unreasonable expectations about the results that can be obtained; nor should plastic surgeons' marketing objectify women. Professionalism on the part of plastic surgeons, along with the utmost respect for patients, must remain paramount.

Introduction

The internet has been a boon to the marketing of plastic surgery, as surgeons, patients, and entrepreneurs have developed ways to satisfy the public's desire for hearing real patients' stories, seeing before-and-after photos, and having a front-row seat in the operating room to observe the performance of various procedures. Surgeons post videos of surgical procedures on their personal websites, as well as on YouTube and Snapchat. Some surgeons tout the educational aspect of such videos and their ability to allay patient fears regarding surgery [1]. Many patients have written about their cosmetic surgical experience, posting on blogs or posting testimonials on their surgeon's website. Web entrepreneurs have cashed in on this hunger by creating sites like RealSelf, Healthgrades, and Vitals®, which enable patients to rate surgeons and procedures as well as providing a forum where patients can query surgeons. Plastic surgeons who were early adopters of the internet and social media found their practices flourishing, as the celebrity associated with being an online sensation translated into instant credibility and long lines of prospective patients [2-4]. Some physicians have even gone so far as to "franchise" their online personas to earn money, helping other surgeons achieve similar success [5]. Online marketing raises a number of ethical issues, some of which have been addressed in professional guidelines.

Ethical Issues in Online Marketing of Plastic Surgery

The American Society of Plastic Surgeons (ASPS) lays as its cornerstone the promotion of the highest standard of personal and professional conduct among its member surgeons.

The ASPS Code of Ethics demands that no communication with the public be false, fraudulent, misleading, or deceptive [6]. ASPS members are to render services with the "full respect for human dignity" and to give each patient the "full measure of service and devotion" [7]. In all public communications, which include all print or online marketing, members "shall strive to use accurate and respectful language and images" [8]. However, the authority of a professional society's code of ethics is limited by governmental regulations regarding restraint of trade [9]. Because ASPS must rely on its members' personal professionalism for the maintenance of respectful standards for advertising, professionalism and ethics have become a key part of the core curriculum of plastic surgical residency training [10].

Unfortunately, some posted videos have raised ethical concerns because they feature surgeons dancing and singing in the operating room, telling jokes to a camera instead of focusing on the patient, or cradling removed body parts in their arms like a baby [11-13]. Members of ASPS have been justifiably outraged when viewing such videos. Complaints have been lodged with the ASPS Ethics Committee for investigation. In fact, the ASPS Code of Ethics demands that members "expose, without hesitation, illegal or unethical conduct of fellow Members of the profession" [7]. The ASPS Ethics Committee carefully evaluates any complaints. Those members found to be in violation are referred to the Judicial Council for adjudication. The member might simply be asked to make a correction or to withdraw the offending advertisement. In severe cases, a violation might result in a member being asked to resign or being expelled from the society [6]. The second author (DJJ), who has served in leadership positions in ASPS, is aware of several such cases. To take one example, the ASPS Code of Ethics prevents plastic surgeons from offering surgery as a contest prize or even as a donation to a charity auction. When the reality television program *The Swan* aired in 2004, it featured a competition wherein "ugly duckling" personal stories were compared. The contestant with the most compelling story was awarded free plastic surgery. The surgeon involved is no longer a member of ASPS. As another example, a Snapchat posting of an ASPS member surgeon singing a rap song was deemed a violation not because it included expletives but because the ASPS member surgeon claimed superiority over other plastic surgeons, which is also a violation of the ASPS Code of Ethics. In this case, the surgeon was required to remove the posting.

Attempting to judge the ethicality of videos in which plastic surgeons show consenting patients and their procedures is much more subjective. The patient might be relatively nude, sometimes with strategically placed emojis covering nipples or genitalia. As such, these graphic videos can serve as unintended entertainment. The second author (DJJ) became aware of one surgeon's Snapchat postings when a preteen related that she and her friends excitedly gathered daily to watch his videos of naked women undergoing surgery. While some might be offended by such nudity and the often lighthearted banter between patient and physician that accompanies it, patients have given written consent

to have their body filmed and the images posted to the internet. Michael Salzhauer says patients particularly seek his services in the hope that their surgery will be posted on Snapchat or featured on his television program [4].

Guidelines for the Use of Patient Images on Social Media

The ASPS Code of Ethics contains general guidelines for the use of patient images. Patient images placed in a journal article, textbook, an educational PowerPoint presentation, or online require the patient's consent [6]. Patients have every right to refuse this use of their personal images. There can be no coercion on the part of a plastic surgeon to get a patient to participate in online marketing. Patients should, however, be informed that once an image is posted online, it might be permanently discoverable. Clark Schierle's group at Northwestern recently published video recommendations, which basically reiterate the Code's requirements [11]. They also suggest the use of an independent videographer so that the surgical team's attention is focused on the task at hand and not distracted by the filming of the video [11].

Patients who decide they no longer want their images used for educational or marketing purposes might find it is difficult to remove undesired images from the internet [14]. Depending on where an image is posted, ownership of the image can default to the business entity that owns the website [15]. Thus, both the patient and the physician can lose control over the images.

When filming a surgical video, the surgeon should put the patient's safety and welfare first and foremost. Procedural videos, while educational, should never pull the surgeon's attention away from the patient. Patient video images must be respectful and appropriate. Identifying marks or tattoos should be covered or eliminated, body parts not essential for understanding the procedure shown should not be in view, and all metadata attached to images must be scrubbed to prevent patient identification [16]. Ideally, plastic surgeon websites should demonstrate real people with real outcomes, so that prospective patients can understand the variability and reality of achievable results [6]. When models are used, they must be identified as such, and it must be clarified that "the model has not received the advertised services" [17].

Finally, there are ethical considerations regarding which patients are appropriate candidates for surgery. While some would never consider surgically altering their bodies, for many people, the correction of perceived faults is acceptable. It has been demonstrated that cosmetic surgery can improve self-esteem and confidence [18, 19]. Plastic surgeons are tasked with determining when patients have a "healthy" concern regarding their appearance and must strive to avoid treating patients with body dysmorphic disorder or those whose concerns far outweigh their perceived deformity [20-22].

Conclusion

The internet and social media have increased the penetration of cosmetic surgery into the public's consciousness. Plastic surgeons are keenly interested in performing desired surgery and being remunerated for doing so, but they must strive to advertise in a professional and ethical manner. To maintain the respect of medical peers and the public, it will be critical for plastic surgeons to use social media to provide factual information regarding cosmetic surgery while protecting patient identity and professionally caring for the patient population. The ASPS, through its Social Media Subcommittee, monitors this ever-evolving landscape and will continue to provide education and guidance to its members and the public.

References

1. Pappas S. Social media broadcasts live surgery to the masses. *Live Science*. May 1, 2013. https://www.livescience.com/29245-social-media-broadcasts-live-surgery.html. Accessed November 5, 2017.
2. Crockett RJ, Pruzinsky T, Persing JA. The influence of plastic surgery "reality TV" on cosmetic surgery patient expectations and decision making. *Plast Reconstr Surg*. 2007;120(1):316-324.
3. Fogel J, King K. Perceived realism and Twitter use are associated with increased acceptance of cosmetic surgery among those watching reality television cosmetic surgery programs. *Plast Reconstr Surg*. 2014;134(2);233-238.
4. Pardes A. Meet Dr. Miami, the plastic surgeon who Snapchats his operations in real time. *Vice*. April 23, 2015. https://www.vice.com/en_us/article/4wbyvj/meet-dr-miami-the-plastic-surgeon-who-snapchats-his-operations-400. Accessed January 6, 2018.
5. Body by Dr. Miami. Join us! Franchise opportunities! http://bodybydrmiami.com. Accessed November 5, 2017.
6. American Society of Plastic Surgeons. Code of Ethics. https://www.plasticsurgery.org/documents/Governance/asps-code-of-ethics.pdf. Updated September 25, 2017. Accessed November 5, 2017.
7. American Society of Plastic Surgeons, 1.
8. American Society of Plastic Surgeons, 2.
9. Dyer AR. Ethics, advertising and the definition of a profession. *J Med Ethics*. 1985;11(2):72-78.
10. Saddeh PR. Professionalism/ethics. Plastic Surgery Education Network Resident Education Center/Plastic Surgery Curriculum.
11. Dorfman RG, Vaca EE, Fine NA, Schierle CF. The ethics of sharing plastic surgery videos on social media: systematic literature review, ethical analysis, and proposed guidelines. *Plast Reconstr Surg*. 2017;140(4):825-836.
12. Keppler N. Out-of-control plastic surgeons' Snapchat hijinks are putting patients at risk. *Vitals*. October 4, 2017. https://vitals.lifehacker.com/out-of-control-plastic-surgeons-snapchat-hijinks-are-pu-1819113914. Accessed January 6, 2018.

13. Leonardo J. Growing presence of social media in the O.R. raises ethics, safety concerns. Plastic Surgery Education Network. http://www.psenetwork.org/news-detail/growing-presence-of-social-media-in-o-r-raises-eth. Published September 2016. Accessed February 22, 2018.
14. Simonds W. How to delete things from the internet: a guide to doing the impossible. Abine. https://www.abine.com/blog/2017/how-to-delete-things-from-the-internet/. Published July 11, 2017. Accessed January 6, 2018.
15. Snap. Snap Inc. terms of service. https://www.snap.com/en-US/terms/. Effective September 26, 2017. Accessed November 5, 2017.
16. Crane GM, Gardner JM. Pathology image-sharing on social media: recommendations for protecting privacy while motivating education. *AMA J Ethics*. 2016;18(8):817-825.
17. American Society of Plastic Surgeons, 5.
18. Honigman RJ, Phillips KA, Castle DJ. A review of psychosocial outcomes for patients seeking cosmetic surgery. *Plast Reconstr Surg.* 2004;113(4):1229-1237.
19. Rankin M, Borah GL, Perry AW, Wey PD. Quality-of-life outcomes after cosmetic surgery. *Plast Reconstr Surg.* 1998;102(6):2139-2145.
20. Bouman TK, Mulkens S, van der Lei B. Cosmetic professionals' awareness of body dysmorphic disorder. *Plast Reconstr Surg.* 2017;139(2):336-342.
21. Crerand CE, Franklin ME, Sarwer DB. Body dysmorphic disorder and cosmetic surgery. *Plast Reconstr Surg.* 2006;118(7):167e-180e.
22. Herruer JM, Prins JB, van Heerbeek N, Verhage-Damen GW, Ingels KJ. Negative predictors for satisfaction in patients seeking facial cosmetic surgery: a systematic review. *Plast Reconstr Surg*. 2015;135(6):1596-1605.

Pablo L. Gutierrez is a writer, musician, and medical school applicant.

Debra J. Johnson, MD, is the immediate past president of the American Society of Plastic Surgeons, on the board of directors of the American Society of Plastic Surgeons, and a clinical professor of plastic surgery at the University of California, Davis School of Medicine.

Related in the *AMA Journal of Ethics*
Advertising Cosmetic Surgery, April 2018
Plastic Surgery's Contributions to Surgical Ethics, April 2018
When Is Advertising a Plastic Surgeon's Individual "Brand" Unethical?, April 2018
When Is Posting about Patients on Social Media Unethical "Medutainment"?, April 2018

ISSN 2376-6980

AMA Journal of Ethics®
April 2018, Volume 20, Number 4: 384-391

MEDICINE AND SOCIETY

What Should Be the Surgeon's Role in Defining "Normal" Genital Appearance?

Devan Stahl, PhD, MDiv, and Christian J. Vercler, MD, MA

Abstract

The recent rise in women seeking cosmetic surgery of their genitalia (labiaplasty) coincides with the increasing number of surgeons posting videos of these operations on social media accounts and websites. Sociocultural influences significantly contribute to our ideas of what constitutes healthy and pathologic, and surgeons have historically played a role in defining "normal" and "abnormal" anatomy. In the nineteenth century, Saartjie Baartman—a woman with a large posterior and unusually long labia minora—was used by physicians to "educate" the public about these differences. We examine the parallels with the twenty-first century practice of surgeons using social media to educate patients about the operations they perform and discuss ethical and professional hazards associated with this practice.

Introduction

Over the past few years, a growing number of plastic surgeons have begun publically broadcasting their surgeries on Snapchat [1], a social media platform that allows users to post pictures and video "stories" that can last up to 24 hours before they vanish from the app. Unlike many other social media platforms, Snapchat allows users to post nude content as long as it is not "pornographic" or "sexual" [2], which allows surgeons using Snapchat (who are mostly men) to post images and videos of breasts, buttocks, and genitals of their patients (almost all women) before, during, and after surgery [3, 4]. Daily, viewers "tune in" to watch various women receive breast augmentations, "butt lifts," "tummy tucks," and even labiaplasties, which one surgeon using Snapchat claims are one of the most common procedures he performs [5]. The platform allows plastic surgeons to document their patients in what is perhaps their most vulnerable state, revealing the most intimate parts of their bodies in a casual, entertaining, uncensored environment.

Even the most intimate and hidden parts of a woman's body, including her genitalia, are not immune from the plastic surgeon's "gaze," which, as Michel Foucault describes, depersonalizes the patient, making her an object of knowledge [6]. During procedures, the expert surgeon points out what is "abnormal" about the woman's vagina to the Snapchat viewer, including various points of asymmetry, an excess of skin or folds, or

looseness. He then explains what he can do to help her achieve a more "natural," "beautiful," "smooth," "tight," or "tucked in" appearance. Although these surgeons receive consent from their patients to use the patients' images on Snapchat, the ways in which they depict, speak about, and handle their female patients' bodies on Snapchat is often vulgar, sexist, and gender normative [7]. The surgeon's actions thus help to define and constrain "normal" genitalia for women. In turn, women might learn to internalize and accept damaged self-conceptions because they regard features that deviate from normal as being important to their own gendered identity [7]. Surgeons further reify normal genitalia by having their patients participate in a public performance of the correction of their "deformity." By pathologizing certain characteristics of female genitalia, surgeons contribute to the notion that women's bodies need "fixing," which can be damaging to women's identities. Plastic surgeons must follow ethical guidelines when using social media platforms such as Snapchat to avoid sexualizing, objectifying, and exploiting their patients as well as demeaning their profession and reinscribing hegemonic gender norms.

Historical Precedents

The surgeon Snapchat phenomenon is hardly the first collision between a voyeuristic public fascinated with women's genitalia and a medical community willing to exploit women's bodies for personal and professional gain. In 1810, British surgeon Alexander Dunlop met Saartjie Baartman, a Khoisan woman working as a servant in the British-controlled Cape Colony. Fascinated with the steatopygia of her buttocks and unusually long labia minora, Dunlop convinced Baartman to come to England with him to exhibit herself as a freak show act [8]. Baartman became the "Hottentot Venus," a crude joke referencing her Khoisan heritage and unusual anatomy that strayed far from European notions of classic beauty. Baartman was cast as an ethnopornographic freak show: a strange, sexual, and wild creature who bordered on the subhuman [9]. Spectators were invited to stare at Baartman and, for an extra fee, they could touch her buttocks to prove it was authentic [10]. The show was one of the most famous attractions of Georgian London, but many found Baartman's display degrading and indecent, as well as immoral and possibly illegal after slavery was abolished in Britain [10]. Members of the African Association took the matter to court, but the case was dismissed after Baartman testified she came willingly to England to make money and was under no restraint to remain [11]. Baartman later wound up in Paris, where she continued to be exhibited and examined by Georges Cuvier, a naturalist whose 16-page report on Baartman dealt mostly with Baartman's genitalia, breasts, buttocks, and pelvis [11]. After her death in 1815 [8], Cuvier made a cast of Baartman's body and preserved her brain and genitals, which remained on display in the Museum National d'Histoire Naturelle in Paris until 1955 and were only returned to South Africa in 2002 [11]. Today, Baartman's biographers agree her display was exploitative and unethical, despite the fact that she was a willing participant [8, 10].

Parallels between the Past and Present

While not to diminish the horrendous conditions under which Baartman found herself during her short life as a freak show exhibit or the obvious racism, sexism, and imperialism that undergirded her display, Baartman's treatment bears some resemblances to the many women who participate in their surgeon's Snapchat videos in at least four ways. First, the main impetus for the public display of these women is male surgeons. Beyond having the advantage of medical knowledge and skills that are revered in American society, the surgeons using Snapchat control how their female patients, who are unconscious and typically nameless as well as faceless, are displayed in their Snapchat videos and thus wield incredible power over them. The celebrity these surgeons are beginning to gain through their use of social media platforms exacerbates this power imbalance. By virtue of their power, surgeons are able to set the standards for what constitutes normal female genitalia, which, as mentioned previously, can be internalized by women exposed to new—and perhaps damaging—standards of genital comeliness [7]. Of course, simply because a patient (or freak show performer) agrees to be displayed by a medical professional does not rule out exploitation. As we will show, certain surgeons' blatant sexualization and objectification of their patients' bodies is indeed unprofessional and exploitative, even if patients themselves agree to this display.

Second, these Snapchats, like the freak show, purport to be a form of education for lay audiences; indeed, the claim is that the educational aspect is why most viewers tune in [12]. Just as the participation of scientists and physicians in the nineteenth-century freak show granted these experts legitimacy and (seemingly) prevented them from being seen purely as recreational [13], so, too, does the presence of a surgeon allow the display of women's bodies on Snapchat to be seen by many as educational rather than exploitative. Surgeons in the nineteenth century, like plastic surgeons who use Snapchat today, used women's bodies as a way to "educate" their profession and the public about the abnormal or displeasing female body and the power of medicine and science over such bodies. Like the showmen of the nineteenth century, surgeons and their social media staff act as the freak show lecturers, directing the audience toward what to look for and why it matters, all the while normalizing and legitimizing gazing at it. The mood is light, the surgeons and their staff members (usually young attractive women) crack jokes, make small talk, play music, and dance, all the while populating their shared images, emojis, memes, Bitmojis, and popular Snapchat filters. Some surgeons, keen to be the center of attention even when examining their patients' naked bodies, create floating images of their own heads that they position carefully over women's breasts and vaginas. Such practices do not educate anyone about the technical skills involved in surgery, the risks involved, or the possible complications. Moreover, it is hard to imagine how such practices benefit the patient, whose care is supposed to be primary. While there is as yet no evidence, one ethical, social, and cultural concern is that the focus on "entertaining" a virtual audience detracts from patient safety and efficiency.

Third, persons who object to surgeons' Snapchats likely question women's consent to being displayed, just as the African Institution questioned Baartman's willing participation. Some Snapchat surgeons claim not only that all of the patients filmed give consent but also that most of their patients know them from social media and ask to be filmed [14]. Some patients want their faces and tattoos covered, but others request "shout-outs" to their friends and family during and after their procedures [14]. As one surgeon explains, millennials, who comprise the bulk of his patients, are unashamed of their bodies or voicing their insecurities, so they do not see plastic surgery as a private matter [14]. Presuming these patients do give their consent, surgeons are still obligated to speak about and handle their patients in respectful and professional ways. If they do not, patients themselves might be blamed for their own representations by Snapchat surgeons. After learning that Baartman consented to her exhibition, many felt justified in belittling her, and she became the subject of countless cruel cartoons, doggerels, and ballads [9]. Doubtless, some might similarly deride millennial women for the same credulity in willingly participating in their own exploitation. Surely, some women are doing so, particularly when they have internalized a prevailing construction of idealized femininity [7]. But consent does not end the moral problem a patient's display might constitute. The nature of the patient-surgeon relationship is one particularly marked by an imbalance of power such that merely obtaining consent is insufficient for avoiding exploitation [15]. An overreliance on the bioethical principle of respect for autonomy has likely obscured other unethical behavior that can occur when physicians treat patients unprofessionally. Surgeons should continue to be aware of the power differentials that enable the exploitation of vulnerable patients, who are likely to internalize messages about "inadequacies" and "defects" that are perpetuated from inside and outside the medical community.

Finally, we ought to be concerned with how patients are portrayed and spoken about, as well as with how surgeons handle their bodies. Not only was Baartman portrayed as a subhuman animal, she was poked and prodded like one as well. Even in death, Baartman's full cast was on display and her genitals preserved in a specimen jar, which was later stored and forgotten until South Africa requested her body to be repatriated [11]. Most surgical patients are naked, unconscious, and on display to the medical team, but surgeons should be careful not to exacerbate these vulnerabilities by overtly objectifying or sexualizing their patients. Male surgeons ought to refrain from behaviors the authors have observed on Snapchat—explicitly sexualizing their patients by referring to how sexually appealing or "hot" they will be postsurgery, asking viewers to rate the sexiness of a woman's new body, or commenting on how sexually fulfilled their partners will be. Surgeons should also be careful to handle their patient's bodies, whether intact or dissected, with professional care. Practices the authors have observed on Snapchat, such as dunking excess fat into basketball hoops, pretending to wear a woman's skin, or groping newly reconstructed body parts while commenting on their sex appeal, must be

avoided. Surgeons must be careful that their medical gaze is therapeutic in intention and not objectifying or sexualizing.

Contemporary Lessons

Saartjie Baartman's body was a phenotypic anomaly in Western society, reinforcing her "otherness" and reifying normal sexual anatomy among European audiences by contrast. Ironically, the contemporary phenomenon of posting before and after photos of genitalia on Snapchat once a procedure is finished does the opposite. It pathologizes normal anatomy and induces emotional distress about one's appearance [16]. The American Society of Plastic Surgeons has only been tracking the incidence of labiaplasties since 2015, and data from 2016 show a 39 percent increase in the number performed over the previous year [17]. What can explain the explosion in the popularity of this procedure? It is difficult to discount the effect of the medicalization of the sexualizing "male gaze." Holding up the vulva as an object of aesthetic scrutiny and projecting postoperative images as the ideal reinforces the assumption that what is within a broad range of phenotypically normal anatomy is *abnormal*. Often labiaplasties are touted as "rejuvenation" of the external genitalia [18]. W. A. Marshall, an anatomist, and J. M. Tanner, an endocrinologist, classified the appearance of external genital development in four stages in which the fourth represents the postpubertal adult phenotype [19]. That the result of most labiaplasties is the achievement of a Tanner stage one appearance—that of an infant or prepubertal girl—should give us pause. Surgeons might be unwittingly perpetuating and exploiting pedophilic tendencies, which are problematic for adult women as well as children.

The advertising guidelines of the American Society of Plastic Surgeons (ASPS) [20] state that "photographs or images will not … falsely or deceptively portray a physical or medical condition, injury, disease, including obesity, or recovery or relief therefrom" [21] and prohibit "appealing to the layperson's fears, anxieties, or emotional vulnerabilities" [22]. A significant number of women seeking labiaplasties cite negative self-perception regarding their genital appearance as a reason for having the operation [23, 24]; therefore, surgeons must consider the extent to which their social media accounts contribute to inducing these feelings of "pudendal self-loathing" [25].

Images labeled #thinspo and #thinspiration (among others) have been regulated by Instagram precisely because of the negative effects such postings on social media might have on certain people, specifically those with eating disorders [26]. While banning such images from social media does not solve the problem [26, 27], there should be a recognition and appropriate response from surgeons to take responsibility for their role in defining normal anatomy in a way that pathologizes a vast swath of normal anatomic variability. The fact that those responsible for defining or redefining what constitutes normal sexual anatomy for women are also those directly profiting from the content of those definitions is an inherent conflict of interest.

Above all else, plastic surgeons are medical professionals who must hold themselves to a higher standard of conduct than merchants peddling goods. The fiduciary responsibility the surgeon has to her patient demands that she put the best interests of her patient before her own profit [28, 29]. In the twenty-first century, it seems clear that Saartjie Baartman was exploited for "educational" purposes and that her "consent" cannot justify the way her body was used. The parallel to surgeons today who use their patients' bodies to educate and entertain on social media is compelling. We believe that the majority of surgeons involved in these activities are merely intending to use every avenue to reach a wider audience, build their reputation, and attract more patients. They are likely unaware of the ramifications of these behaviors. We suggest that surgeons who are serious about their commitments to ethical and professional guidelines, such as the ASPS's, refrain from using social media in ways that sexualize patients' bodies, objectify women's flesh for entertainment, exploit women and children, and market the surgeon at the expense of ensuring safety and efficiency during operations.

References

1. Carstensen M. Plastic surgeons taking to Snapchat to broadcast operations in real time. *Fox News*. April 20, 2017. http://www.foxnews.com/health/2016/04/20/plastic-surgeons-taking-to-snapchat-to-broadcast-operations-in-real-time.html. Accessed 20 December 2017.
2. Snapchat. Community guidelines. https://support.snapchat.com/en-US/a/guidelines. Accessed November 17, 2017.
3. Pannoni A. Follow doctors on Snapchat, Instagram for a glimpse of the profession. *US News and World Report.* July 26, 2016. https://www.usnews.com/education/best-graduate-schools/top-medical-schools/articles/2016-07-26/follow-doctors-on-snapchat-instagram-to-get-a-glimpse-into-the-profession. Accessed 20 December 2017
4. Lamberth TA. Plastic surgeons you should follow on Snapchat. Odyssey. https://www.theodysseyonline.com/plastic-surgeons-you-should-follow-on-snapchat. Published September 19, 2016. Accessed 20 December, 2017.
5. Orlando Labia. The labiaplasty procedure: Dr. Oppenheimer's techniques. https://www.orlandolabia.com/labiaplasty.html. Accessed November 17, 2017.
6. Foucault M. *The Birth of the Clinic: An Archeology of Medical Perception*. Sheridan A, trans. Abingdon, England: Routledge; 2017.
7. Nelson HL. *Damaged Identities, Narrative Repair*. Ithaca, NY: Cornell University Press; 2001.
8. Holmes R. *The Hottentot Venus: The Life and Death of Saartjie Baartman, Born 1789—Buried 2002*. Johannesburg, South Africa: Johnathan Ball; 2007.

9. Lindfors B. Ethnological show business: footlighting the dark content. In: Thomson RG, ed. *Freakery: Cultural Spectacles of the Extraordinary Body*. New York, NY: New York University Press; 1996:207-218.
10. Crais C, Scully P. *Sara Baartman and the Hottentot Venus: A Ghost and a Biography*. New Haven, CT: Princeton University Press; 2009.
11. Tobias PV. Saartjie Baartman: her life, her remains, and the negotiations for their repatriation from France to South Africa. *S Afr J Sci*. 2002;98(3-4):107-110.
12. Bryant T. Why we can't get enough of Snapchat surgeries. *Refinery29*. June 6, 2016. http://www.refinery29.com/2016/06/112898/snapchat-surgeons. Accessed November 30, 2017.
13. Bogdan R. *Freak Show: Presenting Human Oddities for Amusement and Profit*. Chicago, IL: University of Chicago Press; 1990.
14. Pardes A. Meet Dr. Miami, the plastic surgeon who Snapchats his operations in real time. *Vice*. April 24, 2015. https://www.vice.com/en_au/article/4wbyvj/meet-dr-miami-the-plastic-surgeon-who-snapchats-his-operations-400. Accessed December 20, 2017.
15. Vercler CJ. Surgical ethics: surgical virtue and more. *Narrat Inq Bioeth*. 2015;5(1):45-51.
16. Braun V, Tiefer L. The "designer vagina" and the pathologisation of female genital diversity: interventions for change. *Radic Psychol*. 2010;8(1).
17. Horton K. Stats show labiaplasty is becoming more popular. *Plastic Surgery News*. April 25, 2017. https://www.plasticsurgery.org/news/blog/stats-show-labiaplasty-is-becoming-more-popular. Accessed February 21, 2018.
18. American Social of Plastic Surgeons. Vaginal rejuvenation: surgical options. https://www.plasticsurgery.org/cosmetic-procedures/vaginal-rejuvenation/labiaplasty. Accessed February 21, 2018.
19. Marshall WA, Tanner JM. Variations in pattern of pubertal changes in girls. *Arch Dis Child*. 1969;44(235):291-303.
20. American Society of Plastic Surgeons. Advertisers guidelines for compliance with ASPS Code of Ethics. https://www.plasticsurgery.org/documents/Governance/asps-ethics-advertisers-guidelines.pdf. Accessed November 17, 2017.
21. American Society of Plastic Surgeons, Advertisers guidelines, 2.
22. American Society of Plastic Surgeons, Advertisers guidelines, 1.
23. Sharp G, Tiggeman M, Mattiske J. Factors that influence the decision to undergo labiaplasty: media, relationships, and psychological well-being. *Aesthet Surg J*. 2016;36(4):469-478.
24. Sorice SC, Li AY, Canales FL, Furnas HJ. Why women request labiaplasty. *Plast Reconstr Surg*. 2017;139(4):856-863.
25. Zwier S. "What motivates her": motivations for considering labial reduction surgery as recounted on women's online communities and surgeons' websites. *Sex Med*. 2014;2(1):22.

26. Reynold E. Instagram's pro-anorexia ban made the problem worse. *Wired*. March 14, 2016. http://www.wired.co.uk/article/instagram-pro-anorexia-search-terms. Updated March 15, 2016. Accessed November 30, 2017.
27. Chancellor S, Pater JA, Clear T, Gilbert E, De Choudhury M. #thyghgapp: Instagram content moderation and lexical variation in pro-eating disorder communities. Paper presented at: Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work and Social Computing; February 27-March 2, 2016; San Francisco, CA.
28. Vercler CJ. Surgical ethics: surgical virtue and more. *Narrat Inq Bioeth*. 2015;5(1):45-51.
29. Miller FG, Brody H, Chung KC. Cosmetic surgery and the internal morality of medicine. *Camb Q Healthc Ethics*. 2000;9(3):353-364.

Devan Stahl, PhD, MDiv, is an assistant professor of clinical ethics in the Center for Ethics and Humanities in the Life Sciences at Michigan State University in East Lansing, where she also teaches ethics and medical humanities in the College of Human Medicine and works as a clinical ethics consultant. Dr. Stahl's research interests include medical fine art, disability studies, and theological bioethics.

Christian J. Vercler, MD, MA, serves as a clinical assistant professor in the Division of Craniofacial Surgery in the Section of Plastic and Reconstructive Surgery at the University of Michigan in Ann Arbor, where he is also co-chief of the Clinical Ethics Service of the Center for Bioethics and Social Sciences in Medicine. He completed a fellowship in clinical ethics at the Emory University Center for Ethics and earned a master of arts degree in bioethics from Trinity International University.

Related in the *AMA Journal of Ethics*
Are Cosmetic Surgeons Complicit in Promoting Suspect Norms of Beauty?, May 2010
Are Physicians Blameworthy for Iatrogenic Harm Resulting from Unnecessary Genital Surgeries?, August 2017
Can Plastic Surgeons Maintain Professionalism within Social Media?, April 2018
When Is Advertising a Plastic Surgeon's Individual "Brand" Unethical?, April 2018
When Is Posting about Patients on Social Media Unethical "Medutainment"?, April 2018

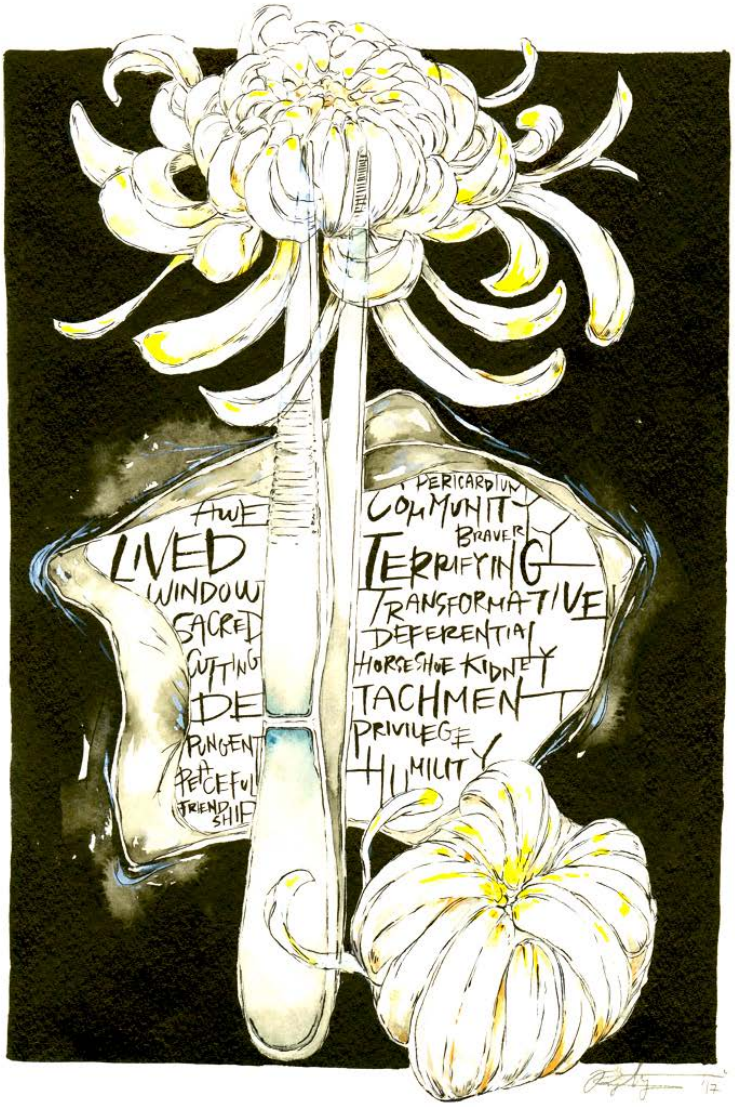
ISSN 2376-6980

AMA Journal of Ethics®
April 2018, Volume 20, Number 4: 392-395

IMAGES OF HEALING AND LEARNING

Instrumental

Artwork and caption by Ryoko Hamaguchi




EMOTIONAL
JOURNEY DISCOVERY
VULNERABILITY
HONORED HEARTBROKEN
TRANSFORMATION
VIOLATION STARTLING
AMAZEMENT ENLIGHTE
INSPIRATIONAL
TRANSFORMATIVE
NING
'17

Figure 1. *Instrumental*, by Ryoko Hamaguchi

Media

Watercolor and ink on paper.

Caption

Incorporating classmates' unique one-word reflections on human anatomy and the experience of engaging with the bodies of our anatomical donors, this series captures a diverse spectrum of human emotions surrounding anatomical dissection. Grappling with the humanity of our varied reactions, we related ourselves—ethically and clinically,

individually and collectively—to our first "patients" and their critical role in our education and growth as physicians.

Ryoko Hamaguchi is a second-year medical student at Harvard Medical School in Boston, Massachusetts.

Related in the *AMA Journal of Ethics*

Is Consent to Autopsy Necessary? Cartesian Dualism in Medicine and Its Limitations, August 2016

Reviewing Systems, February 2018

The Use of Visual Arts as a Window to Diagnosing Medical Pathologies, August 2016

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 396-402

MEDICAL NARRATIVE

How Tattoos Can Complement Breast Reconstruction

Lisa Franczak, CPCP

Abstract

Tattooing offers expanded possibilities for creative expression for women who have undergone mastectomies and breast reconstruction surgeries. Tattoo techniques for areola restoration, such as repigmentation, do not address breast asymmetry or heavy scarring, but breast tattoos can embolden a woman's sexuality, self-confidence, and sense of body reclamation, as well as strengthen her postsurgical capacity for relating to her breasts and expressing her identity. There are many factors involved when a tattoo artist is asked to design an image for a patient. This article describes how I apply my artistic and trade talent to help mastectomy patients creatively reach beyond the limitations of surgical reconstruction possibilities.

Introduction

Breast reconstruction is typically the last stage of a course of breast cancer treatment. As women attempt to re-enter the life they knew before diagnosis and treatment, they have time to consider how changes in the physical appearance of their breasts can deeply emotionally influence their lives. In many cases, the results of reconstruction are not aesthetically ideal and leave some women with uneven breasts and the loss of one or both nipples. In my experience, these realities push some women to opt out of reconstruction entirely. Fortunately, through tattooing, there are expanded possibilities to help these women assume more control of the appearance of their breasts.

What Postsurgical Tattoos Can Offer

Areola restoration has traditionally been the "go-to" route for finalizing breast reconstruction. The process involves tattooing a nipple on the reconstructed breast. Unfortunately, the patient can be left with undesirable results that lack realism and fade quickly due to poor technique and incorrect color [1]. Surgical reconstruction can also leave unwanted breast asymmetry or heavy scarring unaddressed, which leads some women to seek my help. Having a personalized tattoo created instead of or in addition to reconstruction allows the woman to take control of what is happening to her body. When a cancer diagnosis takes that feeling of control away, it can be a liberating feeling to the client to end her journey and battle by marking her milestone and expressing her individuality by getting a tattoo over the chest area. Instead of looking in the mirror and

seeing what she feels is a negative change to her body, she can gain an improved self-image with the positive addition of a tattoo [2].

Tattoo Design

Traditional body artists are able to offer designs that complement the new landscape of a woman's postsurgical breasts. Clients are provided with bolder body art design options as opportunities for artistic expression to further their recovery. The possibilities are endless to fit new contours and camouflage scars. The tattoo designs are expansive, ornate, and organic (as seen in figure 1) to best fit the flow of a woman's body, and they can be used to pull an observer's eye away from surgical scarring, skin puckering, and asymmetry. With these options available, a woman can use a tattoo creation to embolden her sexuality and self-confidence. Awareness of these alternatives seems to have been spread by various nonprofit groups, including on their social media pages [3].

Figure 1. *Unilateral Watercolor Floral Mastectomy Tattoo*. Photo: Lisa Franczak.

Rose Red Tattoo

My personal involvement in breast reconstruction tattooing started in 2014. I had been involved in traditional body art tattooing since 2011, but I wanted to further my education and skillset by receiving permanent makeup training. Permanent makeup is the tattooing of eyebrows, eyeliner, and lip color to mimic the look of makeup and eyebrow hair. It was during this training that I learned areola restoration (using color, light, and shadow to mimic the image of a nipple), other basic tattooing techniques, and

how better to work with scarred, radiated, or otherwise damaged skin. With this knowledge, I was inspired to use my trade and artistic talent to reach beyond convention and specialize in tattooing over mastectomies and reconstructed breasts. I opened my own studio, Rose Red Tattoo and Permanent Makeup, in September 2014 to control the environment for my clients, ensuring that they had a professional and comfortable atmosphere. I perform all areola restoration and mastectomy-related tattoo work personally at this location. I have supplemented my training, and I continually network with members of body art professional organizations to further hone my skills. My artistic vision is to help each woman express herself on her own terms and to complement the flow of each woman's form.

Art on Skin

There are many factors involved when an artist is tasked with designing an image. The quality of the surface is of key consideration. Thought needs to be given, for example, to whether and how a woman's skin has been damaged by illness or treatment. In some cases, nerve damage can be involved or there are skin and tissue grafts from other parts of the body that complete the breast. Radiation and medications can change a client's body chemistry and how her skin reacts to the tattoo process. All these things can influence a person's mental and bodily responses to tattooing, which is actually an abrasion process of repeatedly inserting needles into the dermal layer to inject pigment. Importantly, abrading can trigger a body's immune and inflammatory responses, which can affect how pigment gets absorbed. One must also keep in mind the skin's and body's abilities to heal and retain pigment. Due to considerations like these, some skin areas retain more pigment than others. Some clients, for example, might need multiple sessions to color one area, and some who suffer from many of the aforementioned afflictions might not be good candidates for tattooing at all. For each woman, I assess whether and how a tattoo process could work.

Being versatile as a tattoo artist helps me serve a broad range of women whose style interests are diverse. Design choices are just as important as assessing whether a woman's skin is healthy enough—whether her scars are mature enough to tolerate tattooing [4]. If a woman's breasts have an obvious asymmetry (difference in size, bulges, indents, or scar lines, for example), the design needs to rely on light, shadow, and flow to trick an observer's eye into perceiving those areas differently. Not all design options do this equally well, and a poor design choice could accent the very areas a client wants diminished. So another important dimension of my role in working with woman is to help shape her expectations of what images might look like on her breasts.

Working with Expectations, Design Preferences, and Sculptural Technique

Some clients are not willing to budge from certain themes and imagery that simply do not work with the shape and size of their breasts. While there is some room for compromise, it is important that the shape and flow of the tattoo remain intact so that the work remains cohesive when viewed from, say, a mirror. I often talk with clients about how large or small they want a design to be. Also, I must help them consider an image's effect before it's actually on their skin; this is not just about placing a design that merely covers an undesirable area but about creating one that optically—considering light and shadow, for example—blends and smooths that area. If I acquiesced to a client's specific demands without sufficient discussion, the success of the tattoo could be compromised, leaving yet another unwanted mark on her body and resulting in her disappointment. So I see the stakes of my work as high because of my work's permanence. With this in mind, in some cases, the best thing I can do for some clients is to deny the service and explain why I probably cannot meet their expectations.

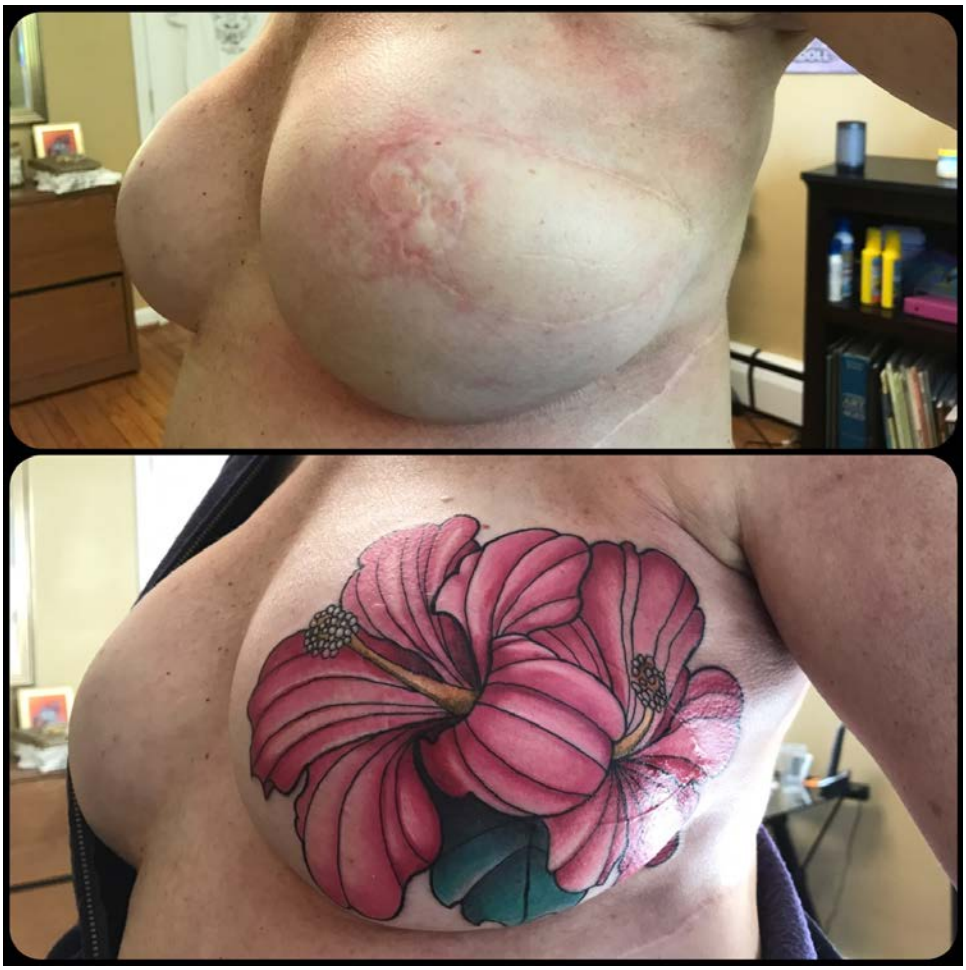


Figure 2. *Unilateral Hibiscus Flower Mastectomy Tattoo on Reconstructed Chest*. Photo: Lisa Franczak.

Design Process for a Reconstructed Chest

As seen in Figure 2, the client wanted a unilateral design for her left breast. She told me she wanted a design that would cover the incision scars and the nipple the surgeon tried to recreate. She expressed that she felt a deep connection to Hawaii, and so the hibiscus flower, native to the islands, was chosen. Floral subjects in general often are excellent choices to cover scars as their organic forms allow for flexibility in either pulling the eye away from the unwanted skin texture or incorporating that texture into the image. I placed the middle of the hibiscus flower over the unwanted nipple area and the flower's stamen pointing towards the inside of the body to help hide the skin texture. I then used one of the petals of the same flower to fill the space left by the incision scars. This petal and the second flower behind it helped to further blend color, light, and shadow to hide the client's skin. The client was not concerned with scarring along the ribs or under the breast, so those areas were left alone. Her skin and scarring accepted the tattoo process well and I was able to create a vivid and vibrant full-color image without much resistance.

Design Process for Unreconstructed Chest

As seen in Figure 3, the client opted out of reconstruction. She was in her 60s and had sun damage on her chest. Age and sun exposure affect the skin's elasticity and degrade skin texture [5]. There was also skin folding and puckering on the sides of her chest. The client asked for a black and gray feminine design but was not interested in animal imagery or a large floral. I created an ornamental design with leafy filigree, a jewel, and small flowers. I placed it lower on the chest to avoid most of the sun damaged area. There is a stark difference between the tattooing of the sun damaged areas at the top of her chest and the paler healthier skin at the bottom. The top is more red and swollen from irritation directly after the procedure, which is attributable to the maturity and sun damage. Slight pigment migration under the skin is also to be expected, as the dermal layer's matrix is not as strong as the healthier skin below. The skin's irritation will subside, but its presence tells the story of the skin's state. By putting a jewel in the middle, I pulled the focal point away from the puckered skin and scars, while the leaves and filigree give the client the coverage of a thin band-like garment.

Figure 3. *Black and Gray Ornamentation Mastectomy Tattoo on Unreconstructed Chest*. Photo: Lisa Franczak.

Conclusion

Being a woman and an artist, I pay close attention to the psychology of body image and perception. From diagnosis to reconstruction, women who've been treated for breast cancer go through a long journey and want to reclaim some control over what happens to their body. Having a skilled artist help complete that journey gives them some control and enhances their capacity to pursue a positive image that surgery alone cannot do. When both processes of surgical reconstruction and artistic tattooing come together harmoniously, a beautiful work of art is created for the women that lasts a lifetime.

References

1. Kelly M. For better nipple reconstruction in cancer patients, surgeons turn to tattoo artists. *Live Science*. June 4, 2014. https://www.livescience.com/46093-nipple-reconstruction-surgeons-tattoo-artists.html. Accessed January 14, 2018.
2. Laura. The psychology of body modification. Painful Pleasures. https://info.painfulpleasures.com/blogs/psychology-body-modification. Published March 20, 2015. Accessed January 14, 2018.
3. P.ink website. http://p-ink.org/. Accessed February 6, 2018.
4. ASCO (American Society of Clinical Oncology) Cancer.Net. Side effects of radiation therapy. https://www.cancer.net/navigating-cancer-care/how-cancer-treated/radiation-therapy/side-effects-radiation-therapy. Published December 2016. Accessed January 14, 2018.

5. Cosmetic procedures: sun exposure and skin cancer. *WebMD*. https://www.webmd.com/beauty/sun-exposure-skin-cancer#1. Accessed January 14, 2018.

Lisa Franczak (a.k.a. Lisa Doll), CPCP, is the owner of Rose Red Tattoo and Permanent Makeup in Ellicott City, Maryland, and has been tattooing since 2011. She specializes in custom illustrative body art and natural permanent makeup. She has an associate's degree in visual arts, is a certified member of the Society of Permanent Cosmetic Professionals, and has advanced training and certifications in permanent cosmetics. Her work has been featured on *NPR*'s *All Things Considered*, Patient Resource publications, and various online publications.

Acknowledgements

I am grateful to all of the clients with whom I have had the pleasure to work, who trusted me with their bodies. I would also like to thank my husband for all his support.

Related in the *AMA Journal of Ethics*

The Importance of Quality of Life to Patient Decision Making in Breast Cancer Care, February 2014

What Should Be the Role of Plastic Surgeons in Nonanatomic Breast Reconstruction, including Tattooing?, April 2018

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 403-413

SECOND THOUGHTS

Exclusion of Medically Necessary Gender-Affirming Surgery for America's Armed Services Veterans

William M. Kuzon, Jr., MD, PhD, Emily Sluiter, and Katherine M. Gast, MD, MS

Abstract

Gender dysphoria, the term used in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*) to describe distress at the incongruence between one's gender and anatomy, affects approximately 0.6 percent of the population. It is estimated that there are 134,000 Armed Forces veterans in the United States with gender dysphoria. Although gender-affirming surgery is widely accepted as a medically necessary intervention for appropriately selected patients with gender dysphoria, the Veterans Health Administration (VHA) Health Benefits package and VHA Directive 2013-033 specifically prohibit gender-affirming surgery within Veterans Affairs (VA) facilities or using VA funding. This policy, which has been legally challenged after being reaffirmed in January 2017, denies medically necessary care to veterans, causing harm to individual patients and reinforcing discrimination and prejudicial treatment of a minority population. We argue that the policy is indefensible as it violates the basic ethical principles of beneficence, nonmaleficence, and justice.

Introduction

Considerable data in the peer-reviewed scientific literature supports the hypothesis that a person's gender identity, i.e., where one places oneself along the male-female gender spectrum, is determined largely by biological rather than social factors and that a person's gender can be incongruent with chromosomal and anatomic sex [1-4]. In fact, this incongruence between anatomic sex and gender identity, currently termed *gender dysphoria* in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5* 302.85) [5] and *transsexualism* in the *International Statistical Classification of Diseases and Related Health Problems* (*ICD-10* F64.0) [6], has been recognized and documented in human populations worldwide since antiquity [7-9]. It is now estimated that 0.6 percent of the US population—roughly 1.4 million people—self-identify as transgender [10]. Access to gender-affirming treatment, however, is denied to some segments of the US population.

For the over two million active-duty, reserve, and retired Armed Services members in the United States [11], TRICARE® provides comprehensive health insurance coverage; for the approximately 22 million Armed Services veterans [12], comprehensive health care is available through the Veterans Health Administration (VHA). TRICARE [13], the VHA Health Benefits package [14], and VHA Directive 2013-003 [15] have specific policies on transgender health care that provide for coverage of mental health services and hormone therapy but specifically prohibit gender-affirming surgery. This article focuses on the medical necessity of gender-affirming surgery for appropriately selected candidates and on the evolution and ethics of the VHA policy; TRICARE's policy has similar ethical implications.

The Benefits of Gender-Affirming Treatment

For trans male patients, gender-affirming surgical procedures can include mastectomy, hysterectomy and oophorectomy, and genital reconstruction (i.e., phalloplasty, metoidioplasty). For trans female patients, gender-affirming surgery can include orchiectomy, facial feminization, thyroid chondroplasty, breast augmentation, and vaginoplasty. There is strong and rapidly accumulating evidence that patients with gender dysphoria benefit from mental health, hormonal, and reconstructive surgical interventions during the social transition from their assigned to their intrinsic gender. Although there are no large multicenter studies in this area, multiple retrospective and a smaller number of single-center prospective studies on facial feminization [16-19], chest reconstruction [20], and genital sex reassignment [21] clearly demonstrate that gender-affirming surgery substantially improves the mental and physical health of transgender patients. This convincing body of evidence has led many major professional organizations, including the American Medical Association [22], the World Professional Association for Transgender Health [23], the National Association of Social Workers [24], the American Public Health Association [25], the American Society of Plastic Surgeons, the American Psychiatric Association, the American Psychological Association, the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, and the Endocrine Society to endorse the medical necessity of gender-affirming care, including gender-affirming surgery, for people with gender dysphoria [26].

Based on the preponderance of evidence and professional expert opinion, the insurance industry has, over the past 5-10 years, shifted from viewing gender-affirming surgery as "cosmetic" or "elective" to recognizing that surgery is part of the medically necessary treatment for gender dysphoria [27]. Most major health insurers, including Blue Cross Blue Shield in many states, the Kaiser Permanente system, Medicare, Medicaid (in fourteen states), and many employer plans— including those of Goldman Sachs Group and General Motors—consider gender-affirming surgery a medically necessary and covered health benefit [28-31]. This change in insurance coverage occurred prior to the passage of the Affordable Care Act (ACA), Section 1557 of which expressly prohibits the

denial of health care or coverage based on sex, gender identity, and sex stereotyping in federal agencies or in entities that receive federal funding for health coverage [32, 33]. It is also worth noting that gender-affirming care, including surgery, is a covered health benefit in most developed countries [34].

Barriers to Gender-Affirming Surgery

Although we accept the overwhelming evidence that gender dysphoria is common and that surgical gender affirmation is an effective treatment for appropriately selected patients, we acknowledge that there are strong cultural, religious, and even isolated academic opinions to the contrary [35, 36]. For example, Mayer and McHugh's special report in the *New Atlantis* states that gender dysphoria "is sometimes treated in adults by hormones or surgery, but there is little scientific evidence that these therapeutic interventions have psychological benefits" [37].

Mayer and McHugh do acknowledge what is not in dispute: that transgender people experience significant discrimination and disadvantages in the United States, with resulting impairment in physical and mental health measures [37]. Among transgender people, rates of suicidal ideation and suicide attempts (40 percent), homelessness (30 percent), HIV (1.4 percent), poverty (29 percent), and unemployment (15 percent) are many times the rates seen in the general US population [27, 38-40]. Many states have legislation that requires genital (sterilizing) surgery before transgender people can change their birth certificate, driver's license, and other identification documents [41]. And voter identification laws can potentially disenfranchise an estimated 34,000 transgender people in local, state, and national elections [42].

Of note, transgender Americans are twice as likely as members of the general US population to serve in the US military. There are currently 134,300 transgender veterans and an estimated 15,000 transgender Americans in active military service [43], so appropriate transgender care is especially critical for these populations [35, 36, 42-44].

Denial of Gender-Affirming Care to Armed Services Veterans

The VHA Health Benefits package [14, 46] and VHA Directive 2013-003 [15], first issued in February 2013 under the title "Providing Health Care for Transgender and Intersex Veterans," specify that mental health services and the prescription of hormone therapy are to be provided for transgender veterans. The specific language in Section 4.b(1) of the directive states:

> Transgender patients and intersex individuals are provided all care included in VA's [Veteran Affairs] medical benefits package including but not limited to: hormonal therapy, mental health care, preoperative evaluation, and medically necessary post-operative and long-term care following sex reassignment surgery to the extent that the appropriate

> health care professional determines that the care is needed to promote, preserve or restore the health of the individual and is in accord with generally-accepted standards of medical practice [15].

However, Section 4.1(C) of the directive states: "Sex reassignment surgery as defined in subparagraph 2c(4), *will not be provided or funded*" (emphasis added) [15], thereby continuing the exclusion of gender-affirming surgery from the Health Benefits package that has been in place since 1992 [47].

In response to a petition filed by veterans Dee Fulcher and Giuliano Silva and by the Transgender American Veterans Association in May 2016, the VHA undertook a review of this policy that resulted in a proposal to lift the prohibition on gender-affirming surgery. The proposed rule change was an agenda item published in the *Federal Register* in spring 2016 [33], although it appears that a formal revision of the directive was never publically circulated. News media reports at the time indicated that the new policy lifting the ban on gender-affirming surgery would become effective in 2017 [48]. In preparation, the VA National Surgery Office (NSO) conducted a survey of all VA medical centers to gauge existing expertise for gender-affirming surgery within the VA system; the results of that survey, in which the first author (WK) participated, were not made public. In November 2016, news media sources reported that a revised directive would *not* include the provision of gender-affirming surgery [49] and, in fact, the revised directive released in February 2017 maintains the prohibition on surgical procedures for the purposes of gender affirmation. The Health Benefits package therefore remains unchanged; gender-affirming surgery is not a covered VHA benefit. Budgetary concerns were cited as the principal reason for continuing the ban. The VA issued the following statement regarding the revised directive: "VA has been and will continue to explore a regulatory change that would allow VA to perform gender alteration surgery and a change in the medical benefits package, when appropriated funding is available" [49]. (It is notable that the statement used inappropriate language: surgery does not "alter gender"; surgery affirms gender by altering anatomy.) On face value, this statement is confusing because gender-affirming surgery would not require infrastructural changes or capital investment; it requires only equipment and facilities already available in VA hospitals [21, 50]. However, beginning with a scandal at the Phoenix VA Health Care System in 2014, the VHA has come under considerable criticism and pressure related to delayed access to care.

Access to Care Considerations in the VHA

In response to the Phoenix VA Health Care System scandal, in August 2014 Congress passed the Veteran's Access, Choice, and Accountability Act (VACAA), commonly referred to as "Choice" [51]. The legislation has been amended several times, but strict time requirements to complete new consults and to provide surgical services remain a centerpiece of the legislation. If a VA facility cannot provide care for a veteran within the

times specified (and if the veteran meets other criteria), the veteran can opt to receive care in the community at the VA's expense. The initial legislation appropriated $15 billion to fund care in the community and also to expand the VA's workforce to improve access [52-54]. The initial money has all been spent, and with each additional reallocation there is increasing pressure to control VACAA-related expenditures [53, 54]. Although the results of the NSO survey were not released, it is very likely that the VHA is no different than the private sector. In the experience of the first author (WK), the number of surgeons and centers that have expertise in performing gender-affirming surgery in the US is small relative to demand. Accordingly, there is access-to-care delay for all transgender surgical candidates. The current requirement is that, for care within the VHA, the time from referral to completion of surgery should not exceed one year [55]. Of note, there is no specification regarding wait times once a veteran is referred to the private sector via Choice. Since there is a large backlog of transgender veterans who might access surgical services at the same time, the VHA would likely not meet VACAA access criteria within the VA system, creating the potential for a large expenditure for surgical care in the community via the Choice mechanism. No alternatives, such as altering VACAA access criteria to be in line with the current reality for gender-affirming surgery in the community, appear to have been considered.

How much would community care cost? There are no data specific to the veteran population, but using the employee utilization rate for gender-affirming care at large civilian employers and the cost per University of California claimant receiving gender-affirming care, Belkin [56] estimated that providing comprehensive gender care to active military personnel would cost $438 per year per transgender service member and just $2.64 per year per member of the military. By extrapolation, gender care for the estimated 8,800 active transgender service members [57] would surely represent a small part of $187 billion that comprises the overall VHA annual budget [54]. In addition, Belkin's cost estimates would also likely be overestimates as the VHA has been shown to provide more cost-efficient care than the private sector [58].

As far as we can determine, gender-affirming surgery is the *only* medically necessary intervention specifically denied to America's Armed Services veterans through the VHA. The withholding of medically necessary surgery has obvious negative health consequences for our veteran population. In addition, this singling out of one minority population for denial of services reinforces and encourages the social and religious discrimination that transgender people already experience. Budgetary concerns and the ambient political climate cannot justify a policy that results in patient harm and that encourages discrimination [59]. We conclude that the prohibition on gender-affirming surgery in the VHA clearly violates the ethical principles of beneficence, nonmaleficence, and justice.

Summary and Recommendation

Gender dysphoria is a common condition, and the consensus of the scientific medical community is that gender-affirming surgery is medically necessary for appropriate candidates. Both Tricare and the VHA policy documents expressly prohibit this surgery in military and VHA facilities and deny reimbursement for gender-related surgical services in the community. Unrealistic access-to-care requirements have created a weak and indefensible justification for continuation of the VHA's ban on gender-affirming surgery. We strongly advocate the immediate revision of VA Directive 2013-003 and of the Health Benefits package to allow the provision of *all* medically necessary surgical services for America's veterans, and we advocate for a similar revision of policy by Tricare for active duty, reserve, and retired military personnel.

References

1. Swaab DF, ed. *The Human Hypothalamus: Basic and Clinical Aspects. Part II: Neuropathology of the Human Hypothalamus and Adjacent Brain Structures*. Amsterdam, The Netherlands: Elsevier; 2004. *Handbook of Clinical Neurology*; vol 80.
2. Swaab DF, Garcia-Falgueras A. Sexual differentiation of the human brain in relation to gender identity and sexual orientation. *Funct Neurol*. 2009;24(1):17-28.
3. Saraswat A, Weinand JD, Safer JD. Evidence supporting the biologic nature of gender identity. *Endocr Pract.* 2015;21(2):199-204.
4. Swaab DF. Sexual differentiation of the human brain: relevance for gender identity, transsexualism and sexual orientation. *Gynecol Endocrinol.* 2004;19(6):301-312.
5. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. Arlington, VA: American Psychiatric Publishing; 2013.
6. World Health Organization. *International Statistical Classification of Diseases and Related Health Problems, 10th Revision*. http://apps.who.int/classifications/icd10/browse/2016/en. Published 2016. Accessed February 28, 2018.
7. Bullough VL, Brundage JA, eds. *Handbook of Medieval Sexuality*. Hoboken, NJ: Taylor and Francis; 2013.
8. Beemyn G. US history. In: Erickson-Schroth L, ed. *Trans Bodies, Trans Selves: A Resource for the Transgender Community.* New York, NY: Oxford University Press; 2014:501-536.
9. von Krafft-Ebing R. *Psychopathia Sexualis: A Medico-Forensic Study, with Special Reference to the Antipathic Sexual Instinct.* Rebman FJ, trans. New York, NY: Physicians and Surgeons Book Company; 1922.
10. Flores AR, Herman JL, Gates GJ, Brown TNT. How many adults identify as transgender in the United States? Los Angeles, CA: Williams Institute; 2016.

http://williamsinstitute.law.ucla.edu/wp-content/uploads/How-Many-Adults-Identify-as-Transgender-in-the-United-States.pdf. Accessed Nov. 15, 2017.
11. FirstNet. Military active-duty personnel, civilians by state. http://www.governing.com/gov-data/military-civilian-active-duty-employee-workforce-numbers-by-state.html. Accessed February 26, 2018.
12. Risen T. Veterans Day data boot camp. *US News and World Report*. November 10, 2014. https://www.usnews.com/news/blogs/data-mine/2014/11/10/veterans-day-data-boot-camp. Accessed February 26, 2018.
13. TRICARE® Manuals Online. TP08 change no. 169: list of affected pages. http://manuals.tricare.osd.mil/pages/PageList.aspx?Manual=TP08&Change=169. Accessed January 10, 2018.
14. US Department of Veterans Affairs Veterans Health Administration Office of Community Care. *CHAMPVA Handbook Supplement*. Denver, CO: CHAMPVA Center; 1992:9.
15. US Department of Veterans Affairs Veterans Health Administration. VHA Directive 2013-003 Providing health care for transgender and intersex veterans. www.va.gov/vhapublications/ViewPublication.asp?pub_ID=2863. Published February 8, 2013. Revised January 19, 2017. Accessed November 15, 2017.
16. Raffaini M, Magri AS, Agostini T. Full facial feminization surgery: patient satisfaction assessment based on 180 procedures involving 33 consecutive patients. *Plast Reconstr Surg.* 2016;137(2):438-448.
17. Ainsworth TA, Spiegel JH. Quality of life of individuals with and without facial feminization surgery or gender reassignment surgery. *Qual Life Res*. 2010;19(7):1019-1024.
18. Satterwhite T, Morrison SD, Ludwig DC, et al. Abstract: prospective quality of life outcomes after facial feminization surgery. *Plast Reconstr Surg Glob Open*. 2017;5(suppl 9):204-205.
19. Capitán L, Simon D, Kaye K, Tenório T. Facial feminization surgery: the forehead. Surgical techniques and analysis of results. *Plast Reconstr Surg.* 2014;134(4):609-619.
20. Van de Grift TC, Kreukels BP, Elfering L, et al. Body image in transmen: multidimensional measurement and the effects of mastectomy. *J Sex Med*. 2016;13(11):1778-1786.
21. Wierckx K, Van Caenegem E, Elaut E, et al. Quality of life and sexual health after sex reassignment surgery in transsexual men. *J Sex Med.* 2011;8(12):3379-3388.
22. American Medical Association. Removing financial barriers to care for transgender patients H-185.950. https://policysearch.ama-assn.org/policyfinder/detail/Removing%20Financial%20Barriers%20to%20Care%20for%20Transgender%20Patients%20H-185.950?uri=%2FAMADoc%2FHOD.xml-0-1128.xml. Updated 2016. Accessed December 6, 2017.
23. World Professional Association for Transgender Health. *Standards of Care for Transsexual, Transgender, and Gender Nonconforming People, Version 7*.

https://s3.amazonaws.com/amo_hub_content/Association140/files/Standards%20of%20Care%20V7%20-%202011%20WPATH%20(2)(1).pdf. Published 2011. Accessed January 15 2018.
24. National Association of Social Workers. Transgender and gender identity issues. In: National Association of Social Workers. *Social Work Speaks: National Association of Social Workers Policy Statements 2009-2012*. 8 ed. Washington, DC: National Association of Social Workers Press; 2009:342-350.
25. American Public Health Association. Promoting transgender and gender minority health through inclusive policies and practices. Policy No. 20169. https://apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2017/01/26/promoting-transgender-and-gender-minority-health-through-inclusive-policies-and-practices. Published November 1, 2016. Accessed February 23, 2018.
26. Bau I, Baker K. Legal and policy issues. In: Eckstrand KL, Ehrenfeld JM, eds. *Lesbian, Gay, Bisexual, and Transgender Healthcare: A Clinical Guide to Preventive, Primary, and Specialist Care*. Cham, Switzerland: Springer International Publishing; 2016:421-440.
27. Baker KE. The future of transgender coverage. *New Engl J Med*. 2017;376(19):1801-1804.
28. Human Rights Campaign. Corporate equality index: list of businesses with transgender-inclusive health insurance benefits. https://www.hrc.org/resources/corporate-equality-index-list-of-businesses-with-transgender-inclusive-heal. Accessed February 28, 2018.
29. Human Rights Campaign. Finding insurance for transgender-related healthcare. https://hrc.org/resources/finding-insurance-for-transgender-related-healthcare. Accessed January 2, 2017.
30. National Center for Transgender Equality. Map: state health insurance rules.
31. Mott S. Does Medicare cover gender reassignment surgery? Medicare.com. https://medicare.com/coverage/does-medicare-cover-gender-reassignment-surgery/. Published November 3, 2017. Accessed January 2, 2018.
32. Patient Protection and Affordable Care Act of 2010, Pub L No. 111-148, 124 Stat 119. https://www.gpo.gov/fdsys/pkg/PLAW-111publ148/pdf/PLAW-111publ148.pdf. Accessed February 20, 2018.
33. Department of Health and Human Services Office of the Secretary. Nondiscrimination in health programs and activities; final rule. *Fed Regist*. 2016;81(96):31376-31473. https://www.gpo.gov/fdsys/pkg/FR-2016-05-18/pdf/2016-11458.pdf. Accessed January 1, 2018.
34. Transgender Europe. Gender reassignment surgery/treatment and body modifications map. http://transrespect.org/en/map/gender-reassignment-surgerytreatment-and-body-modifications. Accessed November 15, 2017.
35. McHugh P. Transgender surgery isn't the solution: a drastic physical change doesn't address underlying psycho-social troubles. *Wall Street Journal*. June 12,

2014. https://www.wsj.com/articles/paul-mchugh-transgender-surgery-isnt-the-solution-1402615120. Accessed December 6, 2017.
36. Stroumsa D. The state of transgender health care: policy, law, and medical frameworks. *Am J Public Health*. 2014;104(3):e31-e38.
37. Mayer LS, McHugh PR. Sexuality and gender: findings from the biological, psychological, and social sciences. Part three: gender identity. *New Atlantis*. 2016;(50):86. https://www.thenewatlantis.com/docLib/20160819_TNA50Part3.pdf. Accessed November 15, 2017.
38. James SE, Herman JL, Rankin S, Keisling M, Mottet L, Anafi M. *The Report of the 2015 US Transgender Survey*. Washington, DC: National Center for Transgender Equality; 2016. http://www.transequality.org/sites/default/files/docs/usts/USTS%20Full%20Report%20-%20FINAL%201.6.17.pdf. Accessed December 6, 2017.
39. Dresser R. Inclusion, access, and civility in public bioethics. *Hastings Cent Rep*. 2017;47(suppl 1):S46-S49.
40. Murray M. Intimate choices, public threats—reproductive and LGBTQ rights under a Trump administration. *New Engl J Med*. 2017;376(4):301-303.
41. National Center for Transgender Equality. ID documents center. https://transequality.org/documents. Updated January 2018. Accessed January 1, 2018.
42. Herman JL. Strict voter ID laws may disenfranchise more than 34,000 transgender voters in the 2016 November election. Williams Institute. https://williamsinstitute.law.ucla.edu/research/strict-voter-id-laws-may-disenfranchise-more-than-34000-transgender-voters-in-the-2016-november-election/. Published September 2016. Accessed February 26, 2018.
43. Kauth MR, Blosnich JR, Marra J, Keig Z, Shipherd JC. Transgender health care in the US military and Veterans Health Administration facilities. *Curr Sex Health Rep*. 2017;9(3):121-127.
44. Klasfeld A. Transgenderism more likely in military, study finds. *Courthouse News Service*. July 24, 2012. https://www.courthousenews.com/transgenderism-more-likely-in-military-study-finds/. Accessed November 15, 2017.
45. Brown GR. Transsexuals in the military: flight into hypermasculinity. *Arch Sex Behav*. 1988;17(6):527-537.
46. US Department of Veterans Affairs. *Veterans Health Benefits Handbook*. Generic version. https://www.va.gov/HEALTHBENEFITS/vhbh/publications/vhbh_sample_handbook_2014.pdf. Published 2014. Accessed November 15, 2017.
47. National Center for Transgender Equality. Issues: military and veterans. http://www.transequality.org/issues/military-veterans. Accessed November 15, 2017.

48. Kheel R. VA proposes covering surgeries for transgender vets. *Hill*. June 3, 2016. http://thehill.com/policy/defense/282086-va-proposes-covering-surgeries-for-transgender-vets. Accessed November 15, 2017.
49. Kheel R. VA drops plans to cover surgery for transgender. *Hill*. November 14, 2016. http://thehill.com/policy/defense/305926-va-drops-plans-to-cover-surgery-for-transgender-vets. Accessed November 15, 2015.
50. US Department of Veterans Affairs Veterans Health Administration. VHA operative complexity. https://www.va.gov/health/surgery/. Updated October 18, 2017. Accessed January 15, 2018.
51. Veterans Access, Choice, and Accountability Act of 2014, Pub L No. 113-146, 128 Stat 1754. https://www.gpo.gov/fdsys/pkg/PLAW-113publ146/pdf/PLAW-113publ146.pdf. Accessed February 5, 2018.
52. Pub L No. 113-146, 128 Stat 1801.
53. US Department of Veterans Affairs. *Volume II: Medical Programs and Information Technology, Congressional Submission, FY 2017 Funding and 2018 Advance Appropriations*. https://www.va.gov/budget/products.asp. Accessed January 1, 2018.
54. US Department of Veterans Affairs. *Volume II: Medical Programs and Information Technology, Congressional Submission, FY 2018 Funding and FY 2019 Advance Appropriations*. https://www.va.gov/budget/docs/summary/fy2018VAbudgetVolumeIImedicalProgramsAndInformationTechnology.pdf. Accessed January 1, 2018: 320-321.
55. US Department of Veterans Affairs. Expanded access to non-VA care through the Veterans Choice Program. *Fed Regist*. 2015;80(230):74991-74996. https://www.gpo.gov/fdsys/pkg/FR-2015-12-01/pdf/2015-29865.pdf. Accessed February 28, 2018.
56. Belkin A. Caring for our transgender troops—the negligible cost of transition-related care. *New Engl J Med*. 2015;373(12):1089-1092.
57. Gates GJ, Herman JL; Williams Institute. Transgender military service in the United States. https://williamsinstitute.law.ucla.edu/wp-content/uploads/Transgender-Military-Service-May-2014.pdf. Published May 2014. Accessed January 23, 2018.
58. Bass E, Ellis P, Golding H. Comparing the costs of the veterans' health care system with private-sector costs. Congressional Budget Office. https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49763-VA_Healthcare_Costs.pdf. Published December 2014. Accessed November 15, 2017.
59. Bushatz A. VA scraps rule to allow sex-change surgeries over funding. *Military.com*. November 14, 2016. http://www.military.com/daily-news/2016/11/14/va-scraps-rule-allow-sex-change-surgeries-funding.html. Accessed November 15, 2017.

William M. Kuzon, Jr., MD, PhD, is the chief of surgery at the VA Ann Arbor Healthcare System and the Reed O. Dingman Professor of Surgery in the Section of Plastic Surgery at the University of Michigan in Ann Arbor. He has been the director of surgical services for the University of Michigan Comprehensive Gender Services Program since its inception in 1995.

Emily Sluiter is a research associate in the Section of Plastic Surgery at the University of Michigan in Ann Arbor.

Katherine M. Gast, MD, MS, is a staff surgeon at the William S. Middleton Memorial Veterans Hospital in Madison, Wisconsin, and an assistant professor of surgery in the Division of Plastic Surgery at the University of Wisconsin School of Medicine and Public Health.

Acknowledgements
The authors would like to thank Drs. Andrew Shuman and Christian Vercler for their valuable advice during the preparation of this manuscript.

Related in the *AMA Journal of Ethics*
Affirmative and Responsible Health Care for People with Nonconforming Gender Identities and Expressions, November 2016
Informed Consent in the Medical Care of Transgender and Gender-Nonconforming Patients, November 2016
Service Dogs for Veterans with Posttraumatic Stress Disorder, June 2015
Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates, June 2015
Transgender Rights as Human Rights, November 2016

Disclaimer
The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

ISSN 2376-6980

AMA Journal of Ethics®

April 2018, Volume 20, Number 4: 414-417

About the Contributors

Theme Issue Editor

Megan Lane is a fourth-year medical student at the University of Michigan Medical School in Ann Arbor, where she is a member of the Ethics Path of Excellence. She is also a co-author on an article published in the *AMA Journal of Ethics* in 2016. She earned her BA from Washington University in St. Louis.

Contributors

Safi Ali-Khan earned his undergraduate degree in Romance languages from New York University and is now completing his MD at NYU School of Medicine in New York City. His professional interests include plastic and craniofacial surgery, with a special focus on pediatric and transgender populations, as well as medical ethics and the relationships between medicine and identity.

Katelyn G. Bennett, MD, is a fifth-year plastic surgery resident at the University of Michigan in Ann Arbor. She obtained her medical degree from Indiana University School of Medicine and plans to complete a craniofacial fellowship after the completion of residency. Her research interests include patient-reported outcomes in cleft and craniofacial surgery and ethical issues in plastic surgery.

J. Rodrigo Diaz-Siso, MD, is a postdoctoral research fellow in the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City. Dr. Diaz-Siso's clinical interests include craniofacial surgery, microsurgery, and general reconstructive surgery, and his research interests include vascularized composite allotransplantation, facial transplantation, and surgical education.

Lisa Franczak (a.k.a Lisa Doll), CPCP, is the owner of Rose Red Tattoo and Permanent Makeup in Ellicott City, Maryland, and has been tattooing since 2011. She specializes in custom illustrative body art and natural permanent makeup. She has an associate's degree in visual arts, is a certified member of the Society of Permanent Cosmetic Professionals, and has advanced training and certifications in permanent cosmetics. Her work has been featured on *NPR*'s *All Things Considered*, Patient Resource publications, and various online publications.

Jean-Nicolas Gallant, PhD, is a trainee in the MD-PhD Medical Scientist Training Program at Vanderbilt University in Nashville, Tennessee. He completed his PhD on the genetic basis of non-small cell lung cancer. After completing his MD, he plans to complete a

residency in otolaryngology with the goals of pursuing a career as a head and neck surgeon, researcher, and ethicist.

Katherine M. Gast, MD, MS, is a staff surgeon at the William S. Middleton Memorial Veterans Hospital in Madison, Wisconsin, and an assistant professor of surgery in the Division of Plastic Surgery at the University of Wisconsin School of Medicine and Public Health.

Daniel George, PhD, is an associate professor of humanities at Penn State College of Medicine in Hershey, Pennsylvania. He studies Alzheimer's disease and is also interested in the ethical implications of social media in medicine.

Scott Grant, MD, MBioethics, is a board-certified general and endocrine surgeon with CareMount Medical. He obtained a master of bioethics degree from the University of Pennsylvania, completed a clinical medical ethics fellowship, and later served as a senior ethics fellow at the MacLean Center for Clinical Medical Ethics at the University of Chicago. He is the Resident and Associate Society liaison to the American College of Surgeons Committee on Ethics and a member of the Association for Academic Surgery Ethics Committee and has authored or co-authored a dozen articles and four book chapters, many on surgical ethics.

Pablo L. Gutierrez is a writer, musician, and medical school applicant.

Ryoko Hamaguchi is a second-year medical student at Harvard Medical School in Boston, Massachusetts.

Debra J. Johnson, MD, is the immediate past president of the American Society of Plastic Surgeons, on the board of directors of the American Society of Plastic Surgeons, and a clinical professor of plastic surgery at the University of California, Davis School of Medicine.

Rami S. Kantar, MD, is a surgery resident and current postdoctoral research fellow in the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City. He is interested in academic and outreach craniofacial reconstructive plastic surgery.

Steven J. Kasten, MD, MHPE, is an associate professor, an associate chair for education in the Department of Surgery, and a faculty member for the Master of Health Professions Education program at the University of Michigan Medical School in Ann Arbor. He is also the director of Graduate Medical Education Innovation for the medical school and has more than 15 years of experience in residency program leadership and graduate medical education oversight. He received his MD from the University of Michigan and his MHPE from the University of Illinois at Chicago.

Michael J. Kirsch is a third-year medical student at the University of Michigan Medical School in Ann Arbor.

Jeffrey H. Kozlow, MD, MS, is a clinical associate professor of plastic and reconstructive surgery at the University of Michigan Medical School in Ann Arbor. His clinical practice is focused on reconstructive microsurgery and oncologic reconstruction including postmastectomy breast reconstruction.

William M. Kuzon, Jr., MD, PhD, is the chief of surgery at the VA Ann Arbor Healthcare System and the Reed O. Dingman Professor of Surgery in the Section of Plastic Surgery at the University of Michigan in Ann Arbor. He has been the director of surgical services for the University of Michigan Comprehensive Gender Services Program since its inception in 1995.

Alexander Langerman, MD, SM, is a head and neck surgeon and ethicist at Vanderbilt University Medical Center in Nashville, Tennessee, with appointments in the Department of Otolaryngology and the Center for Biomedical Ethics and Society. With a master's degree in clinical and administrative data science, he also directs the Surgical Analytics Lab at Vanderbilt. His research focuses on the intersection between ethics, data science, and logistics in the operating room, addressing topics such as surgeon-patient decision making, informed consent, surgical transparency, and "black box" recording.

Natalie M. Plana completed her undergraduate studies with a major in natural sciences at Fordham University and is currently pursuing her MD at NYU School of Medicine in New York City. She is also a predoctoral research fellow at the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health, focusing her efforts on facial transplantation, craniofacial surgery, academic issues in medicine, and surgical education and simulation.

William J. Rifkin is a predoctoral research fellow in the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City, where he is also pursuing his medical degree. His research interests include vascularized composite allotransplantation, facial transplantation, microsurgery, wound healing, and transplantation immunology.

Eduardo D. Rodriguez, MD, DDS, is the Helen L. Kimmel Professor of Reconstructive Plastic Surgery and chair of the Hansjörg Wyss Department of Plastic Surgery at NYU Langone Health in New York City. He has performed two full-face and scalp transplantations to date, and his research interests include the technical refinements of facial transplantation as well as ethical aspects of the procedure.

Scott Schweikart, JD, MBE**,** is a senior research associate for the American Medical Association Council on Ethical and Judicial Affairs in Chicago, where he is also the legal editor for the *AMA Journal of Ethics*. Previously, he worked as an attorney editor and reference attorney at Thomson Reuters and practiced law in Chicago. Mr. Schweikart earned his master of bioethics degree from the University of Pennsylvania and his law degree from Case Western Reserve University. He has research interests in health law, health policy, and bioethics, particularly reproductive ethics.

Emily Sluiter is a research associate in the Section of Plastic Surgery at the University of Michigan in Ann Arbor.

Carly P. Smith, PhD, is a clinical psychologist and assistant professor of humanities and psychiatry at Penn State College of Medicine in Hershey, Pennsylvania. She studies trust in health care institutions and how institutional responses to adverse events can break or protect trust.

Devan Stahl, PhD, MDiv, is an assistant professor of clinical ethics in the Center for Ethics and Humanities in the Life Sciences at Michigan State University in East Lansing, where she also teaches ethics and medical humanities in the College of Human Medicine and works as a clinical ethics consultant. Dr. Stahl's research interests include medical fine art, disability studies, and theological bioethics.

Chad M. Teven, MD, is a sixth-year resident in plastic and reconstructive surgery at the University of Chicago Medicine. He completed a clinical medical ethics fellowship and is currently a senior ethics fellow at the MacLean Center for Clinical Medical Ethics at the University of Chicago. Next year he will begin a fellowship in reconstructive microsurgery at Memorial Sloan Kettering Cancer Center.

Manos Tsakiris, PhD, MSc, is a professor of psychology at Royal Holloway, University of London. His interdisciplinary research, based on neuroscientific and psychological experimental paradigms as well as on neurophilosophical approaches to selfhood, focuses on empirically identifying the basic neurocognitive principles governing the sense of agency and body-ownership and the interaction between them.

Christian J. Vercler, MD, MA, serves as a clinical assistant professor in the Division of Craniofacial Surgery in the Section of Plastic and Reconstructive Surgery at the University of Michigan in Ann Arbor, where he is also co-chief of the Clinical Ethics Service of the Center for Bioethics and Social Sciences in Medicine. He completed a fellowship in clinical ethics at the Emory University Center for Ethics and earned a master of arts degree in bioethics from Trinity International University.

ISSN 2376-6980