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SPECIAL TOPIC

The Plastic Surgeon at Work and Play: Surgeon Health, Practice Stress, and Work–Home Balance

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Abstract: Plastic surgeon wellness encompasses physical and mental health, considered in the context of practice stress. In addition, the challenges of work–home balance can lead to substantial negative impact on the surgeon, family, staff, and patients. The data-driven impact of each of these three components with personal vignettes, both individually and collectively, is presented by Michael Bentz, MD as the 2016 presidential address of American Association of Plastic Surgeons. *(Plast Reconstr Surg Glob Open 2016;4:e1081; doi: 10.1097/GOX.0000000000001081; Published online 5 October 2016.)*

Most of the time, when any of us gives a talk, it is about someone else, most commonly our patients. This morning, I have chosen to talk about you, me, and our families. You are the most important assets to the future of plastic surgery. My questions for all of us this morning are the following: How are we doing in protecting plastic surgery's most important assets? How are we doing protecting you and me? My goal is to stimulate additional conversation about surgeon health, the stress of surgical practice, and surgical work–home balance. They are definitely all related. Your personal outcome at home and work is dependent on how you manage each of them.

My first eye-opening introduction to surgeon health and practice outcomes occurred when reviewing a survey of University of Wisconsin (UW), Department of Surgery residency graduates. Harms reported that 32% of our UW graduates developed major health issues in their practice lives, with 50% identifying health compromise after the age of 50, 20% of which lead to an early involuntary or early voluntary retirement—one in five. In addition, 8% of our graduates self-identified as being alcohol-dependent.[1] When you see this kind of data from *other* institutions, it is easy to write off as being different than your local environment. But these data reflected our UW family. The reality is that my work family and yours are more similar. These types of discouraging practice outcomes should raise concern at both individual and organizational levels.

The first topic of the three, surgeon health, is the simplest one. It is also the one that is most easy to compromise in our complicated, hectic, and overscheduled lives. Seven years ago, I developed a subclavian venous effort thrombosis due to thoracic outlet syndrome. After a few days of tissue plasminogen activator and heparin, I required first rib resection. My new primary care provider (PCP) worked me up for other thrombotic etiologies over the following 330 days, including an array of laboratory tests and procedures. Did I have a problem from the many unreported needle sticks and splash exposures that I had sustained? Was an occult cancer making me thrombogenic? How would I have known? I never saw my PCP, had no age-relevant screening, and never reported a needle stick or splash exposure. Although it turns out that I am healthy, I had not taken the responsibility until then for my own health, impacting not only me but also my partners, our residents, and my family.

Having had the first-hand opportunity to learn more in depth about surgeon health, there are data to suggest that regular PCP visits will optimize your health. Shanafelt et al[2] showed that surgeons who had seen their PCP within 12 months were more likely to have up-to-date age-appropriate health care screening, and had superior physical and overall quality of life scores.

There are also data to suggest that no matter how good you are as a physician, you should not be caring for yourself or your own family members as an alternative to having a PCP. In a survey of practicing physicians, 33% organized their personal medical care through corridor consultations. Of those that did treat their family members, 57% felt that their family ultimately received equivalent care compared to their own patients, only 12% received better

Disclosure: *The author has no financial interest to declare in relation to the content of this article. The Article Processing Charge was waived at the discretion of the Editor-in-Chief.*

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Received for publication June 13, 2016; accepted August 19, 2016.
First combined meeting of the American Association of Plastic Surgeons and the Plastic Surgery Research Council held at New York, N.Y., on May 21, 2016.

DOI: 10.1097/GOX.0000000000001081

care, and 31% received worse care.[3] Bottom line: do not neglect your personal health.

The second component of this address—the relationship between practice stress, surgeon burnout, and patient care outcomes—is more interesting and more difficult. Physician burnout is gaining more attention in both the lay literature and the scientific literature. A September 2015 Time Magazine article "Life/Support: Inside the Movement to Save the Mental Health of America's Doctors" described a growing appreciation about the significance of physician burnout.[4]

Each of you will recognize that our practice lives are stressful and progressively more complicated due to multiple factors: increasing regulation and bureaucracy, verbal order audits, medical record audits, coding audits, business audits, a growing clinical production emphasis, medico-legal threats, loss of autonomy, and inadequate electronic medical record support platforms. That aside, the fundamental fact is that patient outcomes can be compromised by surgeon burnout, your personal outcome can be simultaneously compromised. The Time article reinforced to the public that physicians practicing when suffering with signs and symptoms of burnout make more medical errors, deliver diminished quality of practice, and decreased professionalism. Burnout also leads to patients who are less compliant with recommended care plans.[4]

Looking at 1691 ASPS members in a 2011 survey, Qureshi et al[5] reported a validated plastic surgeon burnout rate of nearly 30%, with one quarter of ASPS plastic surgeons, one quarter of you, having a quality of life norm less than that of the general population. Identified risk factors included subspecialty practiced, hours worked, nights covered on call, annual income, practice setting, and academic rank. There were also more home–work conflicts, and a nearly 2-fold increased risk of self-reported errors and impairment.

Balch analyzing a broader American College of Surgeons survey noted that academic surgeons were less likely to experience burnout than surgeons in private practice, less likely to screen positively for depression, and more likely to experience career satisfaction and recommend a surgical career to their children.[6] In that survey, burnout was most associated with trauma surgery care, nights on call, and number of hours worked. In a private practice setting, burnout was most associated with a practice involving 33%–50% effort in nonclinical activities, incentive-based pay, nights on call, and hours worked. In this study, plastic surgeons fell in the middle of the pack relative to our fellow surgical colleague's responses, with 37% of us exhibiting signs of burnout. In addition, 28% screened positively for depression and 46% would not encourage their children to become physicians. We were near the top of all ACS member surgeons at 31% of us possibly not choosing to be a plastic surgeon again.

Looking specifically at academic surgeons and their work environment, Wai et al[7] identified the strongest predictors of overall satisfaction as it relates to home departments, which included shared department governance, collegiality and collaboration, and the nature of their relationship with their supervisor.[7] Shanafelt et al[2] reinforced the inverse relationship of job satisfaction and burnout with the employer's level of organizational productivity, efficiency, and creativity in facilitating physician control.[8] Tschuor et al[9] studied Chairs of Surgery in an effort to understand the leadership environment, and found that 11% expressed dissatisfaction with their work, with younger chair age and fewer years as chair associated with higher job satisfaction, as was adequate clerical support and the opportunity for innovation.

There is a career-stage component associated with these issues. Dyrbye et al[10] studied early-, mid-, and late-career physicians defining stages as <10 years in practice, 11–20 years, and more than 21 years, respectively. Early-career physicians had the lowest satisfaction of career choice, the highest frequency of work–home conflicts, and the highest rates of depersonalization. Mid-career physicians worked more hours, took more call, had the lowest work–life balance, and highest rates of emotional exhaustion and burnout. Mid-career physicians were most likely to leave the practice of medicine for reasons other than retirement. Later-career physicians had the highest career satisfaction, higher work–life balance satisfaction, and higher likelihood of reducing work hours. This study did not address two significant current discussions in health care. One is the impact of burnout and its associated repercussion on residents and their families, and on the other end of the spectrum, the evolving and important conversation about when one should retire from the clinical practice of surgery impacts future workforce analyses and decisions.

In reference to later-career surgeons, Rohrich et al[11] identified the factors that affect a plastic surgeon's retirement plans.[11] The top five of these include rising malpractice costs, insufficient reimbursement, practice stress, increasing regulation, and on-call responsibilities. In an article entitled *The Ageing Surgeon*, Luce[12] defined our practice demographics, and the complicated relationship between performance and experience. He points out that medicine in general, and surgery in particular, lacks a tool to define when technical and cognitive functional change precludes the safe practice of plastic surgery. There are inherent risks to letting us individually define that for ourselves, and thus the imperative of a broader thoughtful conversation that leads to the optimal extension of a safe practice life for both patient and plastic surgeon. This concern has also been articulated by the American College of Surgeons Board of Governors Physician Competency and Health Workgroup.[13] They note that surgeons may not recognize their own cognitive or technical skill loss, and that colleagues and co-workers may need to identify colleagues who exhibit warning signs of professional deterioration. This represents an additional, potentially significant stressor for both surgeon and colleague, but one that may be unavoidable in the absence of validated formal professional practice evaluation metrics. We as plastic surgeons need to take the lead in figuring this before an external agency does it for us.

On the other end of the spectrum and the central focus of a shifting training paradigm are our resident colleagues, the future of plastic surgery. Practice-based stress

and burnout is not limited to attending surgeons. A study by Chaput et al[14] in France found that 25% of plastic surgery residents had high depersonalization scores, 14% reported high-level emotional exhaustion and burnout scales, and 48% had a perceived low level of accomplishment. Interestingly, weekly ward rounds with a senior surgeon was identified as being protective against resident burnout due to limiting depersonalization and facilitating the promotion of personal accomplishment. These data are surprising. Faculty more commonly transmit the challenges and difficulty of day-to-day practice to our residents, and less commonly the privileges and joys that also occur daily.

One obvious and intuitive solution to resident burnout would seem to have been the limitation of resident work hours. A review of 27 separate studies by Bolster and Rourke[15] concluded that focusing on duty hours alone has not resulted in improvements in patient care or resident well-being, and has had an unintended negative impact on resident education. The initial analysis of the ACS First Trial showed that residents in a flexible duty hour group did not work more hours than the standard group; rather they worked more effectively by rearranging their hours.[16] There was also no reported difference in resident satisfaction regarding education or overall well-being, despite a higher reported impact on personal activities. Independently, night float, in contrast to traditional call, has been noted to decrease sleep and increase fatigue and stress.[15] These types of data should stimulate a reconsideration of our approach to rotation scheduling and call coverage.

Although my focus so far has been about the attending and resident surgeon, recognize that your spouse, partner, or significant other is impacted too. Sargent et al[17] showed that orthopedic residents with a supportive spouse show lower levels of burnout. Resident spouses themselves reported an 18% incidence of psychological distress, in contrast to 10% of the faculty spouses. They also reported greater loneliness and stress. Although marital satisfaction was still reported as high, decreased satisfaction correlated particularly with excessive surgeon irritability and fatigue that precluded involvement in family activities.

The third and final piece of the puzzle, and the one that is a bit more elusive, is the concept of "work–home" or "work–life" balance. Physicians in particular have a well-documented propensity toward dissatisfaction with work–life balance and burnout when we are compared with a general population of working adults adjusted for age, relationship status, sex, and hours worked per week.[18] This includes those with other advanced doctoral degrees.

Shanafelt et al[2] studied 7197 surgeons, 52% of whom had experienced a work–home conflict in the 3 weeks preceding the survey. Hours worked per week, having children, sex, Veterans Administration employment, and academic employment were independently associated with increased risk of home–work conflicts, whereas increased surgeon age and some subspecialty practices were associated with decreased risk. Surgeons with a recent home–work conflict were more likely to exhibit symptoms of burnout, depression, and alcohol abuse.[19]

I received my first personal lesson about work–home balance from my then 4-year-old daughter when coming home late on one Friday night after operating all day. She met me coming up the stairs from our garage with a hand on her hip, casually asking if I would be a doctor or a dad that weekend. As a simple and direct question from a child, it was that much painful. It was also a wakeup call that I was smart enough to appreciate.

Many of us struggle with this balance. We can, however, be effective, successful, and engaged at home along with contributing professionally and being academically productive. In fact, we are better at work when we are better at home. The key is to define balance for yourself, honestly assess your progress, then redefine it, and reassess it again over time. Ask the people around you how you are doing. It is helpful even if the answer is a bit more painful than you hope or want to hear. We never permanently arrive at an optimal home–life balance. It is a perpetual journey in search of the proverbial Holy Grail of Surgery that will require you to be strategic about your time. Know that at certain points in your career, saying yes to something means that you will need to say no to something else.

There is hope. Shanafelt et al[2] defined general strategies for success toward improving the quality of life of surgeons.[2] These include finding meaning in your work, focusing on what is important in your life, maintaining a positive outlook, embracing a philosophy that stresses work–life balance, and employing a broader repertoire of wellness promotion practices. These somewhat generic recommendations, while directed at surgeons in practice based on American College of Surgeons survey data, can also be extrapolated to our resident colleagues. Verheyden et al[20] looked at social problems in plastic surgery residents as impacts on their training. One does not need to dig too deeply into their article to appreciate that some of these problems may be either the cause or the result of home–work balance issues at the resident level. Additionally, it is easy to further appreciate some contributing weaknesses in our traditional approach to residency training, and to understand the impact of one such stressed resident on his or her residency program.

Thankfully, there are practical solutions that can be implemented toward improving work–life balance at the attending and resident level. Some will need to occur at home, some at work, and some importantly between the two. Integration of work and home activities and people—including family in domestic and international business travel, tacking social travel onto business travel, carved out days off at home, work-related social functions that involve family members, and planned group athletic activities—are just a few strategies. Global health participation of a surgeon and family member is a unique opportunity to share what you do with a child or loved one. Group athletic activities are additional useful outlet. The team athletic approach has been formally described and studied in a Mayo Clinic program, where incentivized exercise participants reported statistically higher quality-of-life scores, compliance with Health and Human Services/Center for disease Control exercise recommendations, and a trend toward lower symptoms of burnout.[21]

At the home front, event prioritizing and early academic calendar scheduling of key family events is crucial, particularly given the current administrative consequences of late OR and clinic cancellations at each of our institutions. Better and frequent communication via cell phone and also by text, FaceTime, Skype, Snapchat, Instagram, Facebook, and others is essential. Sargent et al[17] looking at surgical spouses and significant others showed that full-time spouse work outside the home, a gratifying sex life, and 90 minutes spent together daily correlated significantly with marital satisfaction.

Protecting the future of plastic surgery together while optimizing you and your family's future is a worthy task for us all. In closing, take your personal inventory and ask these four questions:

1. Are you at risk of health, home, and burnout challenges related to being a plastic surgeon?
   I believe the answer is definitely yes for all of us.
2. Can you improve your general well-being, physical health, and home–work balance?
   I believe that the answer is very likely yes, for most of us.
3. Can that personal improvement lead to improvement in your patient care and performance at work?
   I believe that the data suggest that it will.
4. Will the future of plastic surgery be secured by us all doing so? As you are the future of plastic surgery, whether an Association or Research Council member.
   I am confident that the answer is yes, it will be.

It is an incredible privilege to be a plastic surgeon. We are fortunate to intimately share the lives of our patients, and have daily meaningful impact on them. We take exceptional care of patients, our laboratories, our residents, and our students. Let us also begin the journey to take better care of ourselves, better care of our families, and better care of each other.

You are likely familiar with the old paraphrased Chinese proverb: "The journey of a thousand miles begins with a single step." Let us pledge to take that step together.

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