From the Southern Association for Vascular Surgery

Surgical personalities, surgical burnout, and surgical happiness

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SURGICAL PERSONALITIES

Individuals who have experienced professional success share several traits, which likely enabled them to reach that success. DeLong and DeLong[1] identified several of these characteristics. These high achievers are considered to be driven, result and task oriented, motivated, competitive, and passionate; they crave positive feedback and truly engage in the pursuit of excellence. These qualities are positive but taken in the extreme can actually be antithetical to the goals of high achievers. When driven individuals must trample others to complete their own goals, their rewards become less meaningful. Although they may be highly motivated, high achievers can prioritize and delegate poorly, which may blind them to others' viewpoints. Competitive and passionate leaders can evolve into perfectionists and micromanagers. This has the tendency to annul any meaningful strides made in the process. High achievers walk a fine line on their way to the top and must also continue walking that line when they reach the top to continue to be successful and create purpose in their lives.

Surgeons share many traits of high achievers. Surgeons are driven to success by the procedural nature of their occupation. Removing a gallbladder, reconstructing an aorta, saving a life—these are all outcomes that surgeons look upon as completed tasks. They practice and perfect their craft to achieve the best results possible. We (surgeons) crave feedback from each other: "How was your call night?" and "How did you handle that case?" We care about others' opinions, not only from surgical colleagues but also from our medical counterparts. We are competitive and tend to micromanage technical aspects of procedures and perioperative management. Surgeons possess natural leadership skills and are known to have "take-charge" personalities. We very much have a "can do" mindset and generally can maintain focus on long-term goals. Possessing a "surgical personality" and being a surgeon have tremendous rewards. We have unique relationships with patients, we help people, and we can alleviate suffering and cure diseases. We have obtained a high level of trust and respect not only from our patients but also from people in our community and workplace. Yes, we are goal oriented and we are type A. This is what makes us surgeons!

These traits, however, can also have negative consequences. Telling our medical colleagues that they do not understand how to manage certain diseases is counterproductive to patient care. Surgeons are poor delegators who tend to be micromanagers and can prioritize tasks poorly. The pursuit of excellence can lead to the quest of perfectionism, which is an impossibility. All of these traits are extreme examples of the very qualities that make good surgeons in the first place.

SURGICAL BURNOUT

Shanafelt and coworkers have looked at surgical burnout extensively.[2-5] They found that in the general population, 28% of working individuals are suffering from burnout. Surgeons, by comparison, experience burnout at a rate of 53%. This is an increase compared to several years ago, when the rate of surgeon burnout was identified to be 40%.

Burnout has three parts: emotional exhaustion, depersonalization, and a feeling of ineffectiveness or a lack of personal accomplishment at work.[6] There are intrinsic and extrinsic factors leading to burnout among surgeons. The intrinsic factors stem from the traits of the high achiever or surgical personality. The most obvious factor leading to surgeon burnout is work-life imbalance. This imbalance starts with the positive surgical personality traits of being driven, completing tasks, and pursuing excellence but swells into the negative traits of being poor delegators, prioritizing poorly, and trying to achieve perfectionism. These negative traits lend themselves toward long work hours, which contribute to work-life imbalance. On average, vascular surgeons work 61 hours per work week. We are on-call approximately 2.7 nights per week and spend about 20 hours per week in the operating room.

These long work hours can create work-life conflict. In another review by Shanafelt and coworkers,[5] it was noted that more than 50% of surgeons have had significant work-life conflicts within the past few weeks. It is

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striking that two-thirds of female surgeons admitted to having a significant work-life conflict recently. A majority of male surgeons also suffered this problem. Relationships with significant others that are considered less than ideal lead to a greater incidence of burnout.

Additionally, numerous authors have suggested that the high stakes of human outcomes contribute to burnout. This high stress environment definitely affects surgeons. Overall, 15.4% of surgeons suffer from alcoholism.[7] The question of alcoholism leading to burnout or burnout leading to alcoholism is one that cannot be answered easily. Causality aside, what is striking is that greater than 25% of female surgeons suffer from alcoholism. Vascular surgeons as a group unfortunately suffer the highest rate of suicidal ideation of any surgical specialty.

Extrinsic factors also play a role in surgical burnout. One of the primary features of the health care environment that is attributed to surgeon burnout is loss of surgeon independence and autonomy. Insurance companies and hospital administrators are exerting more control on the practice of medicine. They are intensely focused on financial and volume metrics, not direct patient care. Many surgeons nowadays are no longer referred to as "doctors" but are identified as simply "providers." Over the past 35 years, the growth in hospital administrators has far exceeded the growth in physicians. There has been an approximate doubling of physicians over the past 35 years. However, there has been a 3000% increase in the growth of administrators.

The "McDonaldization" of medicine has been described.[8] McDonald's has integrated into their culture specific corporate pillars. One corporate pillar they have integrated is calculability. Every hamburger that is consumed at a McDonald's worldwide has a precise burger size. Each is made at 9.843 cm in diameter. There is no variation in the hamburger patty size. In an effort to achieve calculability in surgery, many hospitals have generated specific relative value unit targets for productivity that are mandated goals for every employed surgeon. *International Classification of Diseases* coding has proven to be another calculable metric, and measures such as length of stay are established and evaluated regularly, with minimal consideration given to patient variability.

Predictability is the second pillar. McDonald's uses assembly line productivity for all products. Scripted interactions with the staff are developed and diffused across the corporation. Does that differ significantly from standard order sets or templated history and physical exams? Control is the third pillar. Control and consistency of the product and experience is a key strategy McDonald's strives for. A high percentage of the food is pre-prepared or pre-prepped before even reaching the point of sale location. Is that that different from drug formularies, utilization review, and length of stay targets? The McDonaldization of medicine has occurred. It has gone from a purely creative, physician-driven task to that of a high-intensity industry, where the health care providers are viewed as mere cogs in an industrial machine.

Fig 1. Facets of "surgical personalities" that can lead to burnout.

Despite these trends, career satisfaction among surgeons is high. Seventy-one percent of surgeons would choose the same specialty again. Despite all of the positive aspects of being a surgeon, only half of the surgeons would want their children to follow in their footsteps and wish them to have a similar experience. This speaks volumes to the underlying dissatisfaction with the health care delivery system and corporate structure (Fig 1).

SURGEONS AND THE PURSUIT OF HAPPINESS

It is my belief that occupational burnout and unhappiness are not identical twins; however, they are close siblings. It is important to attempt to define and evaluate happiness and examine the possibility of being happy despite our predispositions toward burnout.

Happiness is variably defined. Psychologists state that happiness is what and why people feel happy. Economists define happiness as what people value to give them happiness. Neuroscientists study the changes in neurophysiology within the brain in happy people when they are happy. Using functional magnetic resonance imaging, people who are happy tend to have more activity in the higher brain centers. Yes, there is activity in lower brain centers, but the prefrontal cortex and higher cortex centers demonstrate increased activity in a happy brain compared to an unhappy brain.

The University of Chicago-General Social Survey occurs every 2 years. It evaluates numerous things about the population of the United States, and one of their queries is happiness.[9] They ask people a general question: How happy are you? Consistently one-third answer very happy; 55% say they are somewhat happy; and 11% say they are not too happy. Using a general health questionnaire, 25% of surgeons were found to score below the general

population. Surgeons are less happy than the general population.

A well-heard dictum is "money cannot buy happiness." The basis of this idea is that after a threshold limit of annual income is met, no increase in quality or quantity of happiness occurs.[10] In America, such a threshold is thought to be an annual income of $85,000. However, a person's evaluation of life changes more positively with higher annual income. This leads us to believe that happiness is multifactorial and multifaceted. Specifically, everyday feelings of happiness are related to emotional well-being and the emotional quality of everyday experiences. Contrast this to happiness related to satisfaction with one's life, which stems from a positive life evaluation and positive evaluations when one critically views one's accomplishments. We know that physicians and especially surgeons are compensated well. We generate incomes in the higher percentiles in America. Based on this, surgeons should be happier. Additionally, the ability to positively impact our patients' lives consistently and often through the performance of our daily duties should give us a feeling of long-term accomplishment. Surgeons should be happy.

Individuals may try to predict their future happiness, which is known as affective forecasting or hedonistic forecasting. It is one's attempt to predict one's emotional state in the future. What has been demonstrated time and time again is we are poor predictors of our future happiness. In numerous articles and a superb TED talk, Daniel Gilbert[11,12] shows that people who win the lottery are no happier 1 year after winning the lottery than people who become paraplegic. Following a major incident, people revert to their baseline happiness. Lottery winners come down from a high and the paraplegics move up from a low.

Numerous articles have suggested that exercise can increase happiness. Is this due to endorphins, or is this due to the pure physical drive of doing the exercise? This has not been clearly defined. In an interesting study by a Dutch group, they found that simply smelling the body odor of someone who is happy increases one's rate of happiness.[13] So maybe you should work out with a friend who perspires a lot and who is happy.

Happiness is determined in large part by three main components. Genetics determines approximately 50% of baseline happiness. In studies using identical twins, 48% of happiness was genetically determined. Approximately 40% of happiness is determined temporally by specific isolated events.[9] The remaining 10% of happiness is derived from work, family, community, and mindfulness. Examples of the contribution of isolated events can vary from buying a new car to having a great day to eating a cheeseburger. If I am hungry and craving a cheeseburger and then subsequently I eat that cheeseburger, I am happy. The temporal nature of this type of happiness is likely fleeting, but in that moment, the cheeseburger is making me happy (Fig 2).

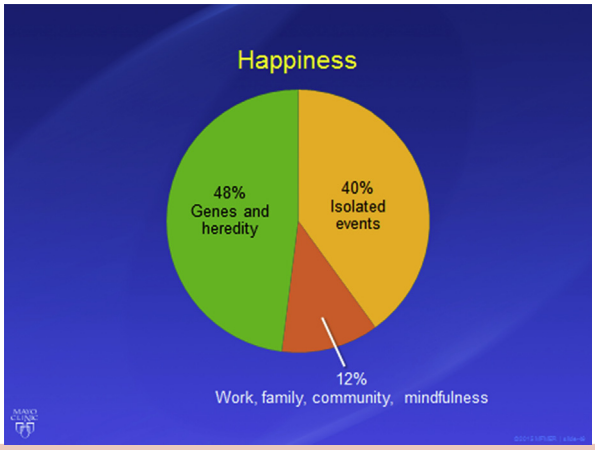

Fig 2. Determinants of happiness.

The *hedonistic treadmill* is a term that is used to define how much greater happiness is gained after achieving something. For example, if you are driving an 8-year-old car and subsequently purchase a new car, you are happy. However, after a certain amount of time, you crave another new car, a nicer car, a better car. The treadmill just keeps getting steeper and steeper, and you therefore have to run harder and harder to keep up with your material happiness. In other words, buying a new car, from the perspective of happiness, is like buying a cheeseburger.

There is more to living than just superficial happiness. Deep levels of happiness come from attaining more complex goals. Altruism portends happiness. Other theories seek to define these deeper and more profound aspirations of happiness. One such theory is called flow happiness. This was described by Csikszentmihalyi.[14] He describes it as a complex immersion in a complex task that is motivated by our deeper talents, our drives, and our interests. He described it in people with a high level of skill who have trained for years to reach the necessary techniques to achieve a high difficult goal. People are happiest when they are engaged, when they are working toward a challenge that meets their level of skill. This challenge engages mental and physical faculties without being overwhelming; it challenges you, it uses your skills, it engages you. These are the moments in our careers that give surgeons the most pleasure, difficult cases with good outcomes and difficult decisions that we feel prepared to make.

Eudaimonia is an older theory of happiness or welfare, but more commonly it is considered human flourishing. It is thought of as a virtue of the highest human good by the Greek philosophers. Eudaimonia is the happiness for which man strives. It is described as a contented state of happy, healthy, and prosperous where you help people, you are altruistic. It is my contention that surgeons live

in this state. We have a special relationship we develop with patients. This is the soul of pleasure in what we do. We apply intricate procedures that took years to master, that push our talents and yield long-term happiness through helping patients. This is flow happiness. What we do is not akin to eating a cheeseburger or buying a new car every 4 years—it is better.

Surgeons share many personality characteristics with high achievers, and these traits lend themselves toward negative emotions and burnout. However, surgeons are also in a unique position to capitalize on many aspects of happiness that we touch upon every day in our pursuit of helping people feel better. As a group, surgeons need to be aware of and minimize the possible negative aspects our inherent nature portends. We must also be aware of happiness as a reality and explore all aspects of happiness in our professional *and* personal lives. In conclusion, eat the cheeseburger if you really want it, but it will only make you happy for a while. Hug your romantic partner, build a good relationship. Connect with your family, have a good work-life balance. Do the difficult case that tests you; that will make you happier in the end. I believe surgeons have a lot of reasons to be happy. Yes, there are issues in the changing health care environment, but surgeons have a particular role that they play, and this role should lead to happiness.

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