Interventional Radiology: A Potential Antidote to Physician Burnout

Michael F. Knox, MD, FACR¹

¹Interventional Radiology, Advanced Radiology Services, PC, Grand Rapids, Michigan

Semin Intervent Radiol 2019;36:46–48

Address for correspondence Michael F. Knox, MD, FACR, Interventional Radiology, Advanced Radiology Services, PC, 3264 N Evergreen, Grand Rapids, MI 49525 (e-mail: mknox@advancedrad.com).

Abstract

Keywords

- burnout
- fulfillment
- meaning and purpose

Physician burnout affects more than half of U.S. physicians, is multifactorial in origin, and should be addressed at organizational, group, and individual levels. By examining the career of one private practice interventional radiologist, insight into lessons learned and strategies for promotion of a fulfilling career might apply to others. Priorities may vary depending on stage of career, but some common themes of meaning and purpose that most interventional radiology (IR) physicians embrace throughout their careers emerge. Recognizing and cultivating these might provide keys to mitigating professional burnout and promoting a fulfilling IR career.

Sometimes I wish I had been given an instruction manual for a career in interventional radiology (IR) as I started down this path 35 years ago. Doesn't every device we use in our craft come with "Instructions for Use"? Not that we read them ... and maybe I wouldn't have read the "Guide to an IR Life" manual had it been provided. At the risk of exposing some personal wounds, I thought it might be interesting to reflect on the journey of one private practice interventional radiologist, with the hope that others might be nudged to evaluate their values, priorities, and individual purpose as they make career decisions.

During my IR fellowship, the fork in the road between academic and private practice seemed like a fundamental decision, although not clear-cut. Ultimately, private practice appeared to give me the best opportunities to achieve my personal goals of direct patient interactions and daily hands-on care. Admittedly, this decision was based on an incomplete dataset of observations from residency and fellowship, and a private practice certainly does not have exclusive rights to these opportunities. All practices come with pressures and demands that make it difficult at times to stay focused on the things that really matter. Looking in the rearview mirror, much has become clearer, and it has made me realize that both conscious choices and fortuitous occurrences have sustained me and provided fulfillment in my IR career. I have also had to come to grips with some choices that I would like to have made differently, but there is no winding back the clock.

My early career was focused on the development of procedural skills, mastery of new procedures, forging strong relationships and gaining credibility with referring physicians, and establishing financial security for my family, all while frequently minimizing personal needs and largely ignoring attention to a healthy work-life balance. For some life events, there is no second chance. Fortunately, I was able to grow through these years, due in large part to a very supportive wife and family. Midcareer was marked not only with continued personal growth in practice but active seeking of leadership positions within my radiology practice, hospital committee work, and contributions to organized radiology. Admittedly, a healthy work-life balance often continued to take a back seat. On the home stretch, a medical "sabbatical" for some mitral valve surgery gave me a view from a patient's eyes, up close and personal. This experience matured me as a physician and has given me a deep sense of empathy and compassion for everyone I see in my IR practice. In the last few years, I have the privilege of serving on the medical leadership team of our large community hospital as chief of staff for our 2,000-physician community. Experiences in this role have given me the opportunity to take a 30,000-foot look at medical care, interact with physicians from every department, and hopefully have a positive impact at a broader level than in earlier years, when medicine was mostly seen through my narrow IR lens. My eyes have also been opened to the need for attention to physician wellness

and self-care, which has been too often ignored by organizations, and admittedly by me and many other physicians. I believe that my fortuitous calling to chairing the Physician Wellness Committee at our hospital has reenergized my IR practice, not only in experiencing fulfillment from my daily IR practice but also in appreciating the joy from working with my younger partners, colleagues, and staff. I know I will truly grieve the day when I hang up my lead apron for the last time. Work-life integration has taken on new meaning: however each of us practice “mindfulness,” I believe it boils down to giving full attention to the moment, so that each of our patients feel that they are the most important encounter of our day, and when we come home, our loved ones know they are the most important people in our lives.

Being curious about how each of my 15 IR partners view their nearly exclusive IR practices, I gathered thoughts from each about what gives them the greatest sense of meaning and purpose, as well as their main priorities. Several themes emerged as responses were analyzed for my early career physician partners (<5 years in practice), midcareer (5–15 years), and late career (>15 years). A universally held opinion across the generations is that the relationships forged with each patient and family are what provide the greatest sense of meaning and purpose, especially when long-term relationships are developed as with interventional oncology patients. Early career physicians tended to prioritize personal growth, building on existing skill sets from fellowship, fitting in to the existing practice and helping build programs, as well as establishing financial viability. Mid and later career physicians tended to prioritize giving back to younger partners and making contributions beyond self, echoing the observation in “A Moment for Reflection,” Chuck Ray’s poignant Seminars’ editorial.¹

By embracing what brings meaning and purpose to our work, I am convinced that the ingredients to promote fulfillment and help prevent career burnout are at our fingertips. Physician burnout is a relatively recently acknowledged affliction, although certainly it is not a new phenomenon. Defined as a “psychological distress syndrome that involves a prolonged response to chronic interpersonal stressors on the job,” burnout was initially described by Christina Maslach in 1981.² The Maslach Burnout Inventory (MBI) provides a validated assessment of professional burnout and is categorized into three domains: emotional exhaustion, depersonalization, and decreased sense of efficacy.² While not unique to physicians, the incidence is much higher than in most other occupations and shows no signs of spontaneously subsiding. Shanafelt et al reported the overall physician burnout incidence among U.S. physicians was 45.5% in 2011, which increased to 54.4% in 2014, compared with rates of 28% in the general workforce in both 2011 and 2014.³ Some of the traits that make physicians great also predispose them to burnout: perfectionism, empathy, idealism, self-criticism. When physicians with these admirable attributes are thrown into environments with excessive workload, bureaucracy, electronic health record demands, lack of individual control, lack of collegial peer interactions, and perceived insufficient recognition and reward, and a milieu is created that seems to make some degree of burnout nearly unavoidable. We are masters of delayed gratification, and as we

ascend the rungs of the ladder from undergraduate training, medical school, residency, fellowship, and ultimately into practice, personal goals outside of medicine and self-care are often put on hold. Although the drivers of burnout may be slightly different between private practice, academic practice, and research paths, no physician is immune.

Consequences of physician burnout are far reaching: patient safety and quality of care may suffer, patient satisfaction and compliance with treatment recommendations are decreased, as well as cost of care and incidence of litigation are increased.⁴ Physicians experiencing burnout are more likely to retire early, cut back on practice, and have poor professional interactions. Burned out physicians are at risk for struggles in their personal lives, physical health problems, substance abuse, depression, and suicidal ideation.^{5,6} It is estimated that 400 physicians die by suicide each year in the United States, nearly twice the incidence in the general population.⁶ A compelling business case can be made that should grab the attention of every hospital system CEO and CFO.⁷ The cost of recruiting and replacing a burned out physician who leaves medicine or retires early is estimated to be two to three times the annual physician salary, not to mention the experience, wisdom, and leadership that are lost.

Radiologists are certainly not immune to burnout. A Medscape survey in 2013 showed a 37% burnout incidence among radiologists, which increased to 49% in 2015, ranking radiology seventh in prevalence among 26 specialties. In assessing overall happiness, radiologists rated lowest of the medical specialties in the 2015 survey.⁸ To my knowledge, there are no existing studies that assess potential burnout differences in incidence, causation, and possible solutions between diagnostic radiologists and interventional radiologists. While many of the stresses in medicine apply to all physicians, there are unique characteristics of diagnostic radiology and IR practices that need to be acknowledged and addressed.

Diagnostic radiologists must contend with endless worklists, cross-sectional imaging studies with thousands of images in multiple planes, and work in isolation with little feedback, except when a “miss” is pointed out or case is referred to peer review. Rarely are our diagnostic partners recognized for the “good call” by referring physicians, almost never see the direct impact that their interpretive expertise has on patients, or receive a “thank you” from one who has benefited from their work.

As individual IR physicians, we may not have much control over some negative extrinsic factors we experience, for example, salary, vacation time, call schedule, daily workload and productivity expectations, electronic medical record documentation requirements, regulatory and/or hospital protocols, and workflow demands. We certainly can attempt to optimize our workflow through scheduling, staff support, streamlined dictation templates and order sets, a strong team with robust APP support, etc.

I submit, however, that IR physicians have daily opportunities to embrace the most powerful intrinsic motivators: purpose, mastery, and autonomy. Initially proposed as means of survival by Austrian psychologist and Nazi concentration camp survivor, Viktor Frankl, in “Man’s Search of

Meaning,” these concepts are certainly applicable to achieving viability and fulfillment in a radiology career.⁹ What greater purpose could each of us be given than to have other human beings put their health and very lives in our gloved hands. Even the simplest and most mundane IR procedure is a significant event for our patient, and we can choose to approach each with a positive mindset, empathy, and kindness, offering a caring human connection with every interaction. A study by Shanafelt et al in 2009 found that if a physician spends more than 20% of his time working on the activity that he perceives to be most meaningful, the incidence of career burnout is significantly reduced as compared with those with less than 20%.¹⁰ For many of us in IR, we get to do what we find most meaningful every day at work. Although the average longevity of a procedure-oriented career in IR may vary, one report indicated that one in eight fellowship-trained IRs was no longer performing procedures at the time of survey.¹¹ It is unknown if this could be a reflection of career burnout in IR, but, if so, the potential to prevent burnout exists for each of us in our daily practices.

We are frequently the recipients of heartfelt thanks, sometimes from our clinical colleagues, but most importantly from our patients and their families. Even in situations where an appreciation is not expressed for whatever reason, we can still feel a deep sense of satisfaction in the knowledge of our contribution. It is sobering to think that our worst days in the hospital are likely much better than our patients' best days.

Many policies and procedures in modern medicine limit individual autonomy through forced adherence to guidelines, evidence-based care, and treatment algorithms. Nevertheless, each patient we touch is affected by our decision making and technical skills, which are completely within our control. A great sense of fulfillment can be realized as our training, knowledge, and judgment converge to allow us to help those who entrust themselves to our care.

Although many strategies appear in the literature for addressing burnout from organizational, group, and individual levels, interventional radiologists have some unique opportunities that might allow each of us to achieve professional fulfillment, and balance, while preventing burnout.

1. *Connect to purpose*—Reflect on why you chose IR. Be grateful for the daily opportunities to benefit patients, their families, referring physicians, peers, and organizations through your skills. Each patient encounter is an opportunity to manifest your purpose.
2. *Foster collegiality*—Consider opportunities to interact with referring physicians, diagnostic radiology colleagues, and IR partners as gifts of connection and not as impediments to workflow.
3. *Share learnings with colleagues*—Mortality/morbidity conferences, patient care conferences, and informal case discussions provide opportunities to learn from each other, and personal resiliency is strengthened through collegial relationships.
4. *Mentor and be mentored*—Create intentional opportunities to share wisdom with younger partners, not only in regard to clinical and technical aspects of IR but also in

interpersonal skills and work-life integration. Seasoned IR physicians should remain open to learning from younger colleagues who bring new ideas and skills.

5. *Consider the value of contributing* through committee work, administrative roles, and leadership positions. Be a part of the solution in your individual IR practice, but also help create a culture in medicine that allows you to express your deepest held values, with IR as your calling, not just your job.
6. *Take quality time away* from clinical care for recharging. For some, this might include protected time for teaching, research, or administrative roles. For all, this includes time dedicated to family and friends, pursuit of individual interests, and self-care with healthy nutrition, exercise, sleep, gratitude, and mindfulness.

The antidote to career burnout is within our reach, and interventional radiologists can experience career fulfillment through direct human connections with patients and families in their times of need. We are given autonomy with each interaction by using our technical expertise and clinical judgment. I encourage you to reflect on the reasons you chose IR as your career in the first place, whether private practice or academics, and pursue your purpose daily. The legacy that each of you leave can be measured by the lives you positively impact, both professionally and personally.

Conflict of Interest

None.

References

- 1 Ray CE Jr. A moment for reflection. *Semin Intervent Radiol* 2015; 32(02):65–66
- 2 Maslach C, Jackson SE, Leiter MG. *Maslach Burnout Inventory*. 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996
- 3 Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in burnout and satisfaction with work-life balance in physicians and the general US working population between 2011 and 2014. *Mayo Clin Proc* 2015;90(12):1600–1613
- 4 Panagioti M, Geraghty K, Johnson J, et al. Association between physician burnout and patient safety, professionalism, and patient satisfaction. A systematic review and meta-analysis. *JAMA Intern Med* 2018;178(10):1317–1330
- 5 McCafferty H, Brown OW; Section on Integrative Medicine; Committee on Practice And Ambulatory Medicine; Section on Integrative Medicine. Physician health and wellness. *Pediatrics* 2014;134(04):830–835
- 6 Shanafelt TD, Balch CM, Dyrbye L, et al. Special report: suicidal ideation among American surgeons. *Arch Surg* 2011;146(01):54–62
- 7 Shanafelt T, Goh J, Sinsky C. The business case for investing in physician well-being. *JAMA Intern Med* 2017;177(12):1826–1832
- 8 Moskowitz PS. Gathering storm clouds suggest the need for a culture change in radiology: radiologist-centered imaging. *Radiology* 2015;276(01):3–7
- 9 Gunderman RB. Burnout: a mismatch made in hell. *J Am Coll Radiol* 2017;14(06):854–855
- 10 Shanafelt TD, West CP, Sloan JA, et al. Career fit and burnout among academic faculty. *Arch Intern Med* 2009;169(10):990–995
- 11 Sunshine JH, Lewis RS, Bhargavan M. A portrait of interventional radiologists in the United States. *AJR Am J Roentgenol* 2005;185(05):1103–1112