WORK-LIFE BALANCE: ESSENTIAL OR EPHEMERAL?

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WORK-LIFE BALANCE: ESSENTIAL OR EPHEMERAL?

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The concept of Work-Life balance in academic medicine: A key component to a balanced life or a stress factor in itself?

Image by Gina Sledge

Burn-out and suicide rates among physicians and scientists in academic medicine are at an all-time high and jeopardize the future of our entire profession. In the last 4 years alone, burn-out rates among physicians have increased by 25%. In a recent 2017 Medscape publication, burn-out rates in Critical Care physicians ranked in 9th place and Pediatricians ranked 13th among 27 subspecialties. Astonishingly, over 50% of the participants reported burn-out symptoms, with clear race and gender disparities. While men generally report higher burn-out rates than women, it is important to emphasize that response rates from women in these surveys were notoriously low and may not represent the complete picture. These numbers are even more dismal for tenured academic faculty at research-extensive universities. In this group, emotional exhaustion (i.e. high burn-out) is reported at 35% with a clear association with age and lower burn-out levels in the older tenured faculty. While no gender or racial/ethnic differences were found in this particular group, higher levels of burn-out were identified in individuals with financial responsibilities beyond a spouse and child.

While it is comforting to note the increasing public interest and research activities in this field, successful approaches to ameliorate the burden and consequences of physician burn-out are still inadequately developed. Academic centers increasingly offer some type of work-life balance program to their employees but, unfortunately, these programs are frequently adopted from corporate business models and remain largely ineffective in the academic environment. It should be evident to most administrators that the stressors of academic clinicians and scientists substantially differ from those of corporate employees.

Based on these observations and over 75 years of combined experience in academic medicine amongst the three editors of this Research Topic, we collected 26 manuscripts from 22 authors at different career stages and different genders, ethnicities, marital status and subspecialties to identify and stratify common and specific stressors and therapeutic approaches to ameliorate burn-out and achieve work-life balance in academic medicine. We are confident that each reader will identify with at least one, if not several, of the authors' opinions, experiences and approaches to attain greater work-life balance and thereby avoid the consequences of burn-out in modern academic medicine.

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OPINION
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Work–Life Balance and Early Stage Careers: Dual Perspectives from One Household

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Keywords: parenting, young professional, postdoc, work balance, life balance

We would like to preface this article by stating that it is written from a combined first-person perspective of both authors, with any person-specific text containing a respective name.

When one thinks about his/her general daily routine or how different aspects of the workplace interconnect with home life, there is likely no deeper self-inquiry into the actual formation of that routine; how is *this* my current norm, and what made it that way? In our early discussions of how we would share our perspective on "work–life balance," we were faced with these types of questions. Fortunately for us, our answers are rooted in relatively recent times (past 3 years), so there is no doubt as to what has influenced our current lifestyle.

As a bit of background, we have been together for a total of 9 years and we just celebrated our third wedding anniversary. We both graduated with bachelor's degrees from Louisiana State University and Jordy went on to pursue his PhD at LSU Health Science Center. During those graduate school years, we decided to move in together and Tristin was working very long hours managing two child and adolescent psychiatric clinics for a local physician. Then suddenly, life happened; we got married, found out we were expecting, and Jordy accepted a postdoctoral fellowship position in Tennessee – all within 3 months. In April 2013, we moved to Memphis where we had no family and few friends. There were some initial struggles securing a full-time job for Tristin, but this did allow her to spend 4 months with our son, Meyer, after he was born. Tristin eventually accepted a position as a residency coordinator at the University of Tennessee Health Science Center, and later moved on to a management position within the affiliated healthcare system. It was during this time of rapid change and adaptation that we were tasked with creating a balance between our careers and our home life.

Without a doubt, the most difficult and rewarding thing we have done is to rear our child completely on our own. Since we were located in a place without any nearby family to provide support and guidance, we had to learn how to independently function as a pair. Compared with our years in New Orleans, establishing a routine with two full-time jobs was much more difficult now that a child was involved. We had to adjust our morning regimen so that Meyer was always sufficiently taken care of by one of us while the other got ready; we had to allow ourselves more time (and coffee) to get him to daycare and get to work on time. If the baby was sick, we had to immediately evaluate one another's work schedules to determine who goes in and who stays home – though we usually end up splitting the day, with one parent taking the morning shift and the other taking the afternoon. We are extremely dedicated to playing equal roles in our son's life. One of us could easily handle feeding him dinner and putting him to bed every week night, but we make an effort to share those tasks for both ourselves and our child, as he is now at the stage when relationship satisfaction has significant influence on his long-term behavior and well-being (1, 2). We want him to rely on us equally and feel that he has a consistent, stable home environment with two available parents. There is no task

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that is specifically delegated to one of us, so that we are prepared to adapt to any situation that may suddenly arise. This is essential in establishing our current work–life balance because we focus on maximizing the time we spend together as a family, but we realistically understand each other's circumstances with respect to work. Though our struggles to gain independence have not been easy, we are proud of what we have accomplished thus far and how it has undoubtedly strengthened our relationship.

As young professionals who are attempting to establish critical career foundations, we often sense an additional weight tipping the balance toward "work." While we each maintain a focus for our respective jobs and goals, we also have genuine mutual respect for one another's responsibilities. Managing multiple clinical offices/staff entails being readily available between 8:00 a.m. and 5:00 p.m. to manage/assist staff, troubleshooting issues that arise in the clinic, and participating in administrative meetings. Postdoctoral fellowships are said to be one of the most enjoyable stages of a scientist's career because of an uninterrupted focus on doing science without the distractions of classes/exams like in graduate school nor the administrative/grant duties associated with being faculty. However, this "tween" status is a gray area in terms of salary and benefits (3), and the dwindling percentage of postdocs being hired as faculty has increased the pressure to work hard in this ultra-competitive field (4). In any case, the differential nature of our jobs has proven to be beneficial in ensuring that we each have adequate time for our work. A postdoc schedule is demanding, but the long hours and autonomy in the laboratory come with more flexibility compared to a more standardized "8-to-5" outpatient clinic schedule. If an experiment requires long incubation times or multiple time points, it can be timed as not to interfere with family time in the early evening; this typically results in returning to the laboratory later at night or early one morning on the weekend. Conversely, the slightly more rigid hours of an office manager is beneficial in that it creates a sense of structure to our day; we both know that around 5:00 p.m. it is time to start wrapping things up so we can go pick up the baby from daycare. Working in the same medical complex allows us the advantage of riding together to and from work. Using one vehicle (most days) further enforces a ~5:00 p.m. end to the work day, gives us extra time to interact with each other, and saves gas money. We both agree that seeing Meyer's face light up when we walk into his classroom is the best part of the day, so riding together from work lets us both enjoy this bonus.

Our pledge to our son and to our careers would be unsustainable if we neglected the pledge that we made to each other. As difficult as it can be sometimes, we still set aside time and money to go on dates. These occasions serve as a needed distraction – an opportunity to experience something new to us in our new city, and a reminder of how much we enjoy each other's company (and medium-rare steak). Alternatively, we enjoy simply being together and catching up on *Mad Men* or *Bob's Burgers*. Having individual personal time is another vital part of our relationship. We have hobbies that we are separately invested in, and, more importantly, we understand how beneficial some degree of freedom is to the psyche (5). Supporting each other's interests can be as simple as taking care of the baby alone for a few hours.

The changes in our work schedules since we moved to Memphis and became parents have been significant. Living in New Orleans, we sometimes did not eat dinner until 9:00 or 10:00 p.m. because we would wait for the other person to get home to enjoy it together. Weekends were reserved for Netflix binges or catching up on sleep in order to prepare for the upcoming week. Establishing this new balance, prompted by the birth of our child and life in a new city, has really encouraged us to enjoy life more for ourselves and Meyer. We acknowledge that these are the formative years of our careers, but importantly these are also the formative years of our family and ensuring that Meyer has a loving, healthy upbringing. Additionally, we have learned to depend on one another and view outside help as a luxury rather than a necessity. Knowing how much we can rely on one another, how much we support each other's career goals, and how much we value our relationship has truly brought us closer together as a family.

Though we are content with our current dynamic, we acknowledge that things will certainly change in coming years. As our careers continue to advance, we will be faced with increasing work responsibility that will undoubtedly put more strain on achieving a good work–life balance. We are fully aware of the potential negative ramifications looming in the future, should we fail in our attempt to maintain balance. Despite knowing that "winter is coming," we uninspiringly concede that we do not yet specifically know how we will adapt in the future. What comforts us about that fact is that, in retrospect, we felt the exact same way 3 years ago when looking forward to our current situation. Based on experiences leading up until now, our opinion is that a positive work–life balance is attainable if we continue to approach new situations in the ways that have worked for us thus far – truly open communication, unconditional support, equality, flexibility, and utilization of complementary strengths (and medium-rare steak).

AUTHOR CONTRIBUTIONS

Both authors equally contributed to the conception and writing of this work.

REFERENCES

1. Shonkoff JP, Garner AS; Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood; Adoption, and Dependent Care ; Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics* (2012) **129**(1):e232–46. doi:10.1542/peds.2011-2663
2. Linville D, Chronister K, Dishion T, Todahl J, Miller J, Shaw D, et al. A longitudinal analysis of parenting practices, couple satisfaction, and child behavior problems. *J Marital Fam Ther* (2010) **36**(2):244–55. doi:10.1111/j.1752-0606.2009.00168.x
3. Shen H. Employee benefits: plight of the postdoc. *Nature* (2015) **525**(7568):279–81. doi:10.1038/nj7568-279a
4. Cyranoski D, Gilbert N, Ledford H, Nayar A, Yahia M. Education: the PhD factory. *Nature* (2011) **472**(7343):276–9. doi:10.1038/472276a

5. Orbuch TL, Hagan LG. In: Reis HT, Sprecher S, editors. *Early Years of Marriage Project*. Thousand Oaks, CA: SAGE Publications, Inc. (2009).

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OPINION
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Love What You Do and Do What You Love

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Keywords: work–life balance, balance, burnout, resident burnout, job satisfaction

From the first day of medical school, the faculty preached an ideal concept of "balance." It was delivered with the sympathetic belief that it would prepare my classmates and me for a field where a large amount of time would be spent working and studying. More importantly, preparing us for a field where suicide rates have been reported to be higher than the general population (1). It was during our first lecture on balance, unbeknownst to me, that we were all being set up for failure. The concept of balancing "work" and "life" was presented to us as an effortless task. Ideally, I should be able to balance the amount of time I spend doing work equally with the amount of time I spend doing something to improve my quality of life. For me, that would entail going for a hike or spending quality time with family and friends. There are two fundamental problems with this concept: first, in practice, it is not that easy; and second, it categorizes "work" to be the opposite of fun. As I graduated from medical school and endured one more speech about balance, I was left with the words, "don't forget about the things you love to do." These words, while at the time were considered to be negligible, have impacted my belief system deeply and have helped to shape my concept of balance.

My view of "work–life balance" may be better appreciated after an understanding of my background and current status. I am a pediatric resident with plans of going into the field of Pediatric Critical Care Medicine. I strongly believe in the value of research and education and have several ongoing projects in addition to my residency clinical requirements and responsibilities. I often find myself pressed for time with barely a moment to contemplate what is work and what is life, never mind balancing the two. Despite all these, I have rarely felt the effects of physical and emotional burnout during my Critical Care rotations, or during residency as a whole. My co-residents do not necessarily share this sentiment. Goldhagen et al. mentions that elevated stress levels lead to burnout, and West et al. states that stress and fatigue lead to increased medical errors (2, 3). As I take a step back, it should not be a surprise that residents fear the field of Critical Care. The shared opinion among most residents is that their Critical Care rotation tends to be the most emotionally and physically trying rotation of their 3 years. As one resident bluntly said, "I avoid that wing like I would the plague."

It became apparent that the critical care rotation evoked deep seeded emotions for many of my colleagues. In order to determine the possible etiologies, I decided to send out an informal, open-ended survey to each resident. I received an overwhelming number of responses to consider. One resident insightfully wrote:

> I feel like I'm a pretty tough person and don't show much emotion at work, but each time I've been in the PICU, I've left with a sense of emotional (and physical) exhaustion! You see so much there and some of it is pretty sad. ICU is inherently a place of major burnout, and a winter/busy month can especially feel like that. Further, I think it would be absolutely wonderful if on the final day – maybe over the noon hour, we could all meet with a couple of attendings/NPs, an RN, chaplain or whatever ancillary staff would want to be there to just introduce this concept of burnout and patient loss. We could have an open discussion in how different people deal/cope with what they see after they leave work.

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In response to similar sentiments, an intensivist and I instituted a "debriefing session," at the end of each resident's monthly Critical Care rotation. This allotted time to discuss the topics surrounding resident stress and burnout. The sessions were set up similar to the system created by Eckleberry-Hunt et al., and Rabow and McPhee in their studies of resident burnout (4, 5). During these sessions, the residents are granted an hour, free of duties, to discuss the rotation, feelings of being overwhelmed, sadness, joy, and their personal methods to avoid burnout. Further emotional services, through social work and the Employee Assistance Program are offered and avenues to connect with them are also provided. These meetings typically are filled with emotion, which is a positive sign that the residents feel comfortable expressing their feelings openly without any omissions. There are two topics that are consistently mentioned at each meeting. Some residents mention a lack of general respect among colleagues. The other is the issue of balancing "work" with "life."

One resident raised the issue that we all enjoy practicing the art of medicine. However, it is not uncommon to collide with obstacles that obstruct the potential joy that should be found on a daily basis. Attending physicians, nurse practitioners, fellows, co-residents, nurses, and families typically provide the perceived obstacles encountered in medicine. Studies have evaluated the effect of supervisor's moods on employees and co-workers moods toward each other. Not surprisingly, they found expressed negative emotions toward each other decreased job satisfaction and further initiated negative mood among staff (6, 7).

That being said, it is not uncommon for a co-worker to have a bad day. This is usually due to an unfortunate event or the high stress level, which sadly is part of the job. When this is mixed with poor coping strategies, it can lead to an outward production of negative emotions and cripple another person's happiness. Thus, giving into the adage, "misery loves company" as seen in the mood influence theory of Bolger et al. and Avramova and Staple. Negative mood reduces cooperation and induces interpersonal conflict (8, 9). There are many potential variables encountered daily that can shatter previous sentiments of adoration toward medicine, which make it just as tough to find enjoyment. This is why it is stressed at each post Critical Care debriefing that we are each other's support system. We are all responsible for each other continuing to enjoy what we do. Therefore, we should ensure that the opportunity for the emotional and physical balance of our peers exists. No matter what our position is in the hospital, we must realize the impact our attitude plays on our peers and how it can impede the balance required for our success in medicine. More importantly, we must willingly accept this responsibility. The unwillingness to accept this responsibility impacts both life and work balance.

It is remarkable to see many of my colleagues spend their days stressed in the critical care unit and then try to rush home after to do something enjoyable. Not surprisingly, they are disheartened when they realize there is rarely enough time. Their feelings of exhaustion are further amplified when they realize their ideal of work–life balance is unfeasible. This is juxtaposed by others who enjoyed the time spent on their critical care rotation. They did not find themselves falling into a cycle of despondency when they could not get home in time to enjoy the things that bring them pleasure outside of work. Is the latter group more mentally balanced than the former and therefore able to cope with the struggles found in the Critical Care environment? Not necessarily. In fact, it is my contention that the former group has fallen into the unintentional deception of having an equal balance between work and life. Essentially, they assume having a dichotomy will lead to happiness.

By avoiding the dichotomy of work and life as two separate entities, leading to the unintentional assumption of life being good and therefore work being bad, a physician can find balance. So, how does a person avoid creating a system of good and bad that leads to constant disappointment? Is this even possible? Absolutely. I think about the sincere words of my medical school professor urging me not to forget to do what I love. If I live by this belief, I will be a physician who has developed mental and emotional balance. While I try to take time to go for a hike or run, spend time with family and friends, I am realistic that this is not always possible. Establishing myself in a career where free time is fleeting I have to remember that I am doing what I love. Working with patients, figuring out diagnoses, and applying concepts of physiology evokes my inner nerd and brings me an exuberance that I would not be able to experience in any other field. On the days when I find myself working late and cannot meet my friends, I still walk away with a sense of joy and accomplishment. Instead of falling ill to the idea of "work" and "life" needing to be balanced to create harmony, I subscribe to the sentiment that work and life should be one; the struggle to create a dichotomy does the opposite.

Obviously, the issues of work–life balance, job satisfaction, and burnout are multifactorial and hopefully, I was able to reveal a couple of the constituents that play pivotal roles. We need to abandon the outdated belief that creating a dichotomy between work and life will lead to stronger mental and physical balance, and we must accept the responsibility that we all play a vital role in the work–life balance of our colleagues through the expression of our negative and positive attitudes. Each debriefing session that I attend allows me time to reflect on these principles and ensure that I continue to maintain balance in my life, which is essential for a person entering a field that is reportedly time consuming. Lastly, it is comforting to know that while I may have a lot on my plate and cannot afford as much time as I would like for hiking or meeting up with friends, I am happy. I am abiding by the profound words of my medical school professor and not forgetting about the things I love to do.

AUTHOR CONTRIBUTIONS

JV – is a Pediatric Resident at Phoenix Children's Hospital and has a strong interest in Pediatric Critical Care and work–life balance. He has contributed a piece discussing this topic with a strong focus on the obstacles that impede balance in residency.

REFERENCES

1. Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). *Am J Psychiatry* (2004) **161**(12):2295–302. doi:10.1176/appi.ajp.161.12.2295
2. Goldhagen BE, Kingsolver K, Stinnett SS, Rosdahl JA. Stress and burnout in residents: impact of mindfulness-based resilience training. *Adv Med Educ Pract* (2015) **6**:525–632. doi:10.2147/AMEP.S88580
3. West CP, Tan AD, Habermann TM, Sloan JA, Shanafelt TD. Association of resident fatigue and distress with perceived medical errors. *JAMA* (2009) **302**(12):1294–300. doi:10.1001/jama.2009.1389
4. Eckleberry-Hunt J, Van Dyke A, Lick D, Tucciarone J. Changing the conversation from burnout to wellness: physician well-being in residency training programs. *J Grad Med Educ* (2009) **1**:225–30. doi:10.4300/JGME-D-09-00026.1
5. Rabow MW, McPhee SJ. Doctoring to heal: fostering well-being among physicians through personal reflection. *West J Med* (2001) **174**:4–5. doi:10.1136/ewjm.174.1.66
6. Cortese CG, Colombo L, Ghislieri C. Determinants of nurses' job satisfaction: the role of work-family conflict, job demand, emotional charge and social support. *J Nurs Manag* (2010) **18**(1):35–43. doi:10.1111/j.1365-2834.2009.01064.x
7. Sy T, Côté S, Saavedra R. The contagious leader: impact of the leader's mood on the mood of group members, group affective tone, and group processes. *J Appl Psychol* (2005) **90**(2):295–305. doi:10.1037/0021-9010.90.2.295
8. Bolger N, DeLongis A, Kessler RC, Schilling EA. Effects of daily stress on negative mood. *J Pers Soc Psychol* (1989) **57**(5):808–18. doi:10.1037/0022-3514.57.5.808
9. Avramova YR, Stapel DA. Moods as spotlights: the influence of mood on accessibility effects. *J Pers Soc Psychol* (2008) **95**(3):542–54. doi:10.1037/a0012560

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Work Life Balance – What Balance?

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Keywords: work, life balance, ephemeral, essential, time management

"*Never get so busy making a living that you forget to make a life.*" Anonymous. This quote stands out because as we highlight our career goals and strategically plan for them, our personal lives often happen as an afterthought. To be successful at achieving a work–life balance, we should pay equal attention to planning all spheres of our life. While God and Family have been the bedrock in my own life, I am still being groomed for a successful career. On closer examination, I have found that I was subtly prepared for personal life as well. I still remember my Aunt calling me with the following words, "Come and learn to cook so you won't starve." Or "Come and learn to do laundry so you can wear clean clothes."

While I made clear career goals and worked methodically toward them, my personal life was sacrificed on the altar of success, with the expectation that someday I would pay myself back. That strategy works well in the short-term, but in the long run, it breeds resentment, bitterness, and an unbalanced life and dare I say it is unsafe. It took tragedy of unprecedented proportions to teach me that in the game of life there are no opportunities for payback. Shanafelt et al. in their paper "Burnout and satisfaction with work life balance among us physicians relative to the general US population" found that physicians were more likely to be dissatisfied with their work–life balance compared to the general population (40.2 vs. 23.2%). Additionally, physicians were at a higher risk of burnout 37.9 vs. 27.8% ($p < 0.001$) (1). The same authors found, 40% of physicians reported burnout, of those emergency medicine physicians were most likely to report burnout. In a separate observational cohort study performed by Garcia, which compared general pediatricians to pediatric intensivist, they found 71% of intensivists vs. 29% of general pediatricians were burnout ($p < 0.01$). (2). Hence, a lack of balance can lead to emotional exhaustion, depersonalization of our patients and their families, and lack of professional accomplishments (2).

In the business of life, the journey is as important as the destination. Time does not stop so you can achieve a goal, and our responsibility to our families does not pause for our careers. No one ever says, "I wish that I'd spent more time at work" on their deathbed. What good is it that we are internationally known for our career and our family only knows our name? Or we have achieved the ideal family life but our patients suffer a negative outcome because their doctor was rushing to punch the clock. Dare I say that you have not achieved success if we succeed in one area of your life and the rest of our life is in shambles? Another study found the presence of work–home conflicts in the past 3 weeks, and resolution of that conflict in favor of work was among the top three contributors to burnout (3).

I achieved a work–life balance by understanding and defining my priorities – I value my faith and my family above my career, my career above leisure, and leisure above wealth. I may not always be allowed to structure my time in complete harmony with these principles, but they all seem to even out. Now, while I cannot attend every family function, I make sure to attend the ones I should not miss; I may not snag the highest accolades but I attain the ones that carry the most value to me. I love my job, but it does not steal from my family and in turn, my family does not steal from job. There are days when emergencies occur and contrary to popular belief, there are systems in place to accommodate. It is those systems that ensure my balance – my husband supports me when I have to stay late or when I need to study or work on my fellowship research project. Oppositely, when I have family emergencies, my colleagues make it possible for me to respond to a family emergency seamlessly.

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I am still learning how to say no to detractors and other's expectations. While it looks good to be on a committee, I cannot be on every committee. I only have set time on this earth to achieve my purpose, and the challenge is to define and complete it in the allotted time. For example, on most clinical days, I am too tired to go home and read about an interesting patient but I have gotten around that by reading 1 h prior to starting my work day, on my downtime at work, reading a quick topic before I leave at the end of the day, instead of being unproductive.

Mayo Clinic Proceedings polled 900 spouses of physicians; they found that the strongest predictor of relationship satisfaction was the amount of awake time spent with their spouse daily. When I am night service, there are times I will not see my husband for a week but we talk at least once a day. Carol Ascherener, AAMC Chief Medical Education Officer, stated that achieving work–life balance is determined by how you spend your "discretionary time" (4). As a Fellow, "discretionary time" is defined by a finite period of time; so it is okay to unplug your devices, delegate the mundane tasks, and "plug in" to yourself (5, 6), your family, or your education.

Undoubtedly, as our careers surrounded by circumstances and responsibilities change, our priorities adjust themselves accordingly. Our ability to be flexible (in our thinking and schedules) and resourceful yet masterful in problem solving will be invaluable in maintaining a balanced life. My life is balanced by a thought that I love my family with all my heart, and I must give to my patients what I want for my family.

For each person, I challenge you to assign your priorities and schedule your time in accordance with them (7). Never forget what you do matters. I will end this article in the words of Dr. Bill Gentry, "You aren't perfect. All you can be is your best. Be your best at work. Be your best at home. Even if you can't spend the time you want in an aspect of your life be the best at it when you are in it."

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REFERENCES

1. Shanafelt T, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work life balance among us physicians relative to the general US population. *Arch Intern Med* (2012) **172**(18):1377–85. doi:10.1001/archinternmed.2012.3199
2. Garcia TT, Garcia PC, Molon ME, Piva JP, Tasker RC, Branco RG, et al. Prevalence of burnout in pediatric intensivists: an observational comparison with general pediatricians. *Pediatr Crit Care Med* (2014) **15**(8):e347–53. doi:10.1097/PCC.0000000000000218
3. Lombardozzi KAK. *Physician Burnout – A Threat to Quality and Integrity SCCM communications*. Available from: http://www.sccm.org/Communications/Critical-Connections/Archives/Pages/Physician-Burnout—A-Threat-to-Quality-and-Integrity.aspx
4. Glicksman E. *Wanting It All: A New Generation of Doctors Places Higher Value on Work-Life Balance*. AAMC Reporter. Available from: https://www.aamc.org/newsroom/reporter/336402/work-life.html
5. Shanafelt T. A career in surgical oncology: finding meaning, balance, and personal satisfaction. *Ann Surg Oncol* (2008) **15**(2):400–6. doi:10.1245/s10434-007-9725-9
6. Shanafelt TD, Novotny P, Johnson ME, Zhao X, Steensma DP, Lacy MQ, et al. The well-being and personal wellness promotion strategies of medical oncologists in the North Central Cancer Treatment Group. *Oncology* (2005) **68**:23–32. doi:10.1159/000084519
7. Shanafelt TD, West CP, Sloan JA, Novotny PJ, Poland GA, Menaker R, et al. Career fit and burnout among academic faculty. *Arch Intern Med* (2009) **169**(10):990–5. doi:10.1001/archinternmed.2009.70

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OPINION
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Work–Life Balance: The True Failure Is in Not Trying

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Keywords: work–life balance, well-being, medical education, mentoring, residency training

> *Defeat is not the worst of failures.*
> *Not to have tried is the true failure.*
>
> George Edward Woodberry

Last year, I was one of two chief residents at a mid-sized Pediatric residency program. We both started out the academic year excited for the opportunity to bridge the gap between the residents and the faculty/administration. For our roles as educators and administrators – those responsibilities detailed in the "job description" – we felt well prepared. However, a surprising proportion of our time was spent trying to protect the well-being of our residents. It was through that effort that I was introduced to the concept of work–life balance.

Work–life balance is a relatively new concept in the field of medicine and is considered by many to be a generational desire. Younger physicians are often cited as demanding that their professional lives make a little room for their personal lives. The concepts of flexible schedules, part-time hours, and job sharing are the fruits of their labor. Well-being and mindfulness are the new maxims in medical schools and training programs. This sea change in the culture of medicine, however, has not been universally applauded nor accepted by those we consider our mentors.

A regular New York Times Op Ed contributor, the anesthesiologist Karen S. Sibert, MD, argued that, "Medicine shouldn't be a part-time interest to be set aside if it becomes inconvenient; it deserves to be a life's work (1)." This attitude pervades academic medicine (2). Indeed, this has been the culture of medicine for hundreds of years. Physicians were always available. Residents and faculty alike would spend days on end in the hospital. They were ready and willing to miss soccer games and school plays, anniversaries, and holidays to be of service to their patients.

However, this no longer appears to be tenable for many physicians whether at the trainee or the faculty level. The first few weeks of my year as chief resident were punctuated by the suicides of two interns training at programs in New York. The number of trainees at my own program who were deeply affected by those deaths surprised me. They were saddened by – but unfortunately understood very well – the struggles endured by those two interns at the beginning of their residency. They empathized with those trainees and with those that remained.

An insightful Op Ed written by an Internal Medicine resident at Yale entitled, "Why Do Doctors Commit Suicide," appeared in the New York Times in response to those tragedies. In the article, he reminds the reader of the enthusiasm with which we begin our residencies, and the "fatigue, emotional exhaustion, and crippling self-doubt" that unfortunately follow for many trainees (3). An exponential increase in the workload from medical school into residency contributes to that transformation. Suddenly, the intern is expected to care for twice to three times as many patients, remember their patients' complex medical histories, and understand the evidence upon which their patients' care is based.

This is certainly true at my former program – a well-respected, high-volume children's hospital. The interns spend the majority of their morning pre-rounding, rounding, calling consults, and putting in orders. The remainder of the day is relegated to finishing their progress notes, answering

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an inexplicable number of pages, and putting in more orders. The cumbersome nature of notes, multiplicity of information sources, and lack of clarity writing orders drags the days' tasks well into the evening. They are expected to (and definitely would like to) return to their homes and dedicate the remainder of their waking hours to reading about their patients' conditions. Instead, they prep their notes for the following day and update discharge summaries until they finally end up in bed with 4–5 h of sleep ahead.

During these task-driven days, unfortunately, there are fewer opportunities for formal education. Morning report has been whittled down to a mere 30 min in the era of duty hour restrictions. Rounds, given the great number of patients and a relatively truncated day, are necessarily succinct. Afternoon teaching sessions with the fellows or attendings are unattended because of patient responsibilities. A caesura in the day's madness for self-directed learning – reading a textbook, reviewing the literature – seldom occurs.

Despite these barriers, my former program produces well-trained physicians. The benefits of experiential learning in such a high-volume environment, in the presence of excellent physicians, cannot be denied. However, the tragedy of dwindling time for formal education is obvious. The years of experience that these physicians have accumulated could provide invaluable lessons for the residents. Understaffed academic hospitals with overworked clinician-educators are the locales in which this demanding workday milieu exists to the detriment of education. I have observed a similar situation at my current program. I have heard the same stories from friends training around the country.

As a former chief resident, the toll this takes on the mental and physical well-being of trainees is unacceptable. Residents feel guilty because they cannot possibly spend any more time reading. They feel guilty because they do not spend enough time with their patients. They feel guilty when their exhausted attendings ask them to see "just one more patient" when their team is capped. They feel guilty because they do not see their friends, they do not talk to their families, and they were not able to travel home for the holidays. They have not bought groceries, done the laundry, or walked their dogs for weeks.

Poor nutrition, dehydration, and minimal exercise are the hallmarks of many physicians' lives (4, 5). According to one study, only 38% of resident physicians have a personal family physician. More alarming is that 25% of those with chronic illnesses and 40% who use prescription medications regularly do not have a physician (6). My co-chief and I often had to force febrile, ill-appearing residents to make doctors' appointments despite the clear effect their illness was having on their ability to safely provide patient care. Physicians, especially trainees, lead lives marked by imbalance despite that maxim to "heal thyself."

This imbalance has considerable long-term consequences. Work–life imbalance has been associated with decreased job satisfaction, productivity, and eventual burnout. As Shanafelt et al. summarized in their national survey evaluating burnout among physicians, "burnout may erode professionalism, influence quality of care, increase the risk for medical errors, and promote early retirement (7)." And the incidence of physician burnout is steadily increasing. According to another survey, from 2013 to 2015, physician burnout increased from 39.8 to 46% (8). Studies have shown that physician rates of suicidal ideation and suicide may be higher than in the general population (9–12).

These are depressing trends within a field defined by altruism. My colleagues often tell me that they would not choose medicine again if given the opportunity. They do not recommend the life of a physician to younger relatives and family friends. I witnessed more than a few incredible clinician-educators battle with unappreciated long hours in the hospital. One-by-one they retired from the field of medicine – they became stay-at-home parents, pharmaceutical consultants, and research scientists. We are losing/we will lose the smartest and the brightest if we are unwilling to evolve in this profession. Those who are willing to sacrifice their personal life in favor of work are commendable, but this should no longer be the expectation.

Many in my generation would not be willing to "suck it up" the way that older physicians were willing to. Rather than fighting that reality, we should accept this new culture of medicine. True, our incomes may suffer in the era of part-time hours and job sharing. We may have to rely on advanced practice providers such as physician assistants and nurse practitioners to cover the expanding "ranks of insured patients (1)." I recognize that I am in the infancy of my career – with my limited experience I cannot possibly imagine the myriad ramifications of this shift in medicine. I understand that many are concerned that these changes may negatively affect patient care. However, patient care has already been shown to suffer when work–life balance does not exist.

There are physicians that have achieved what some have deemed the "ephemeral." For those of my generation whose well-being requires some "balance" (because there are plenty that do not), these individuals might serve as mentors. Fledgling mentoring programs have been shown to improve aspects of "job-related well-being, self-esteem, and self-efficacy" in early academics in some institutions (13). This is not surprising given that medical education's foundation has traditionally been that of apprenticeship. Mentoring and role modeling are not exceptional ideas in our profession – the future might just require some adjustment in focus to maintain happy and healthy physicians.

I would like to end by thanking my former residency program for realizing the magnitude of this issue. The associate program director and program director supported the residents and chief residents in developing a physician well-being/work–life balance curriculum. Program funds have been allocated to a number of activities, including dedicated monthly noon conferences, resident-developed evening sessions, and a quarterly book club at an attendings' home. Resident daytime and nighttime patient caps were decreased to protect patient safety and resident education. While these endeavors are in their infancy, they are a step in the right direction.

Residency is an ideal time for future physicians to start thinking about their need for work–life balance. It would be wonderful if academic institutions supported mentoring programs and well-being curricula to help their trainees (and physicians) in

this regard. Our current and future trainees deserve at least the opportunity to maintain balance in their lives.

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REFERENCES

1. Sibert K. *Don't Quit This Day Job*. New York Times (2011). Available from: www.nytimes.com
2. Strong EA, De Castro R, Sambuco D, Stewart A, Ubel PA, Griffith KA, et al. Work-life balance in academic medicine: narratives of physician-researchers and their mentors. *J Gen Intern Med* (2013) **28**(12):1596–603. doi:10.1007/s11606-013-2521-2
3. Sinha P. *Why Do Doctors Commit Suicide?* New York Times (2014). Available from: www.nytimes.com
4. Parshuram CS, Dhanani S, Kirsh JA, Cox PN. Fellowship training, workload, fatigue and physical stress: a prospective observational study. *CMAJ* (2004) **170**(6):965–70. doi:10.1503/cmaj.1030442
5. Winston J, Johnson C, Wilson S. Barriers to healthy eating by National Health Service (NHS) hospital doctors in the hospital setting: results of a cross-sectional survey. *BMC Res Notes* (2008) **1**:69. doi:10.1186/1756-0500-1-69
6. Campbell S, Delva D. Physician do not heal thyself. Survey of personal health practices among medical residents. *Can Fam Physician* (2003) **49**:1121–7.
7. Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med* 2012 **172**(18):1377–85.
8. Peckham C. *Medscape Physician Lifestyle Report 2015*. (2015). Available from: www.medscape.com
9. Lindeman S, Laara E, Hakko H, Lonngvist J. A systematic review on gender-specific suicide mortality in medical doctors. *Br J Psychiatry* (1996) **168**(3):274–9. doi:10.1192/bjp.168.3.274
10. Agerbo E, Gunnell D, Bonde JP, Mortensen PB, Nordentoft M. Suicide and occupation: the impact of socio-economic, demographic and psychiatric differences. *Psychol Med* (2007) **37**:1131–40. doi:10.1017/S0033291707000487
11. Frank E, Biola H, Burnett CA. Mortality rates and causes among U.S. physicians. *Am J Prev Med* (2000) **19**:155–9. doi:10.1016/S0749-3797(00)00201-4
12. Shanafelt TD, Balch CM, Dyrbye L, Bechamps G, Russell T, Satele D, et al. Special report: suicidal ideation among American surgeons. *Arch Surg* (2011) **146**(1):54–62.
13. Dutta R. One year outcomes of a mentoring scheme for female academics: a pilot study at the Institute of Psychiatry, King's College London. *BMC Med Educ* (2011) **11**:13. doi:10.1186/1472-6920-11-13

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The fallacy of chasing after work-life balance

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> "There is no such thing as work-life balance. Everything worth fighting for unbalances your life."
>
> — Alain de Botton

As a pediatric intensivist and clinician-scientist, finding a balance between work and life is essential to my professional success and my personal happiness. Failure to achieve a healthy balance will result in burn-out. So I was warned all these years since the first day of medical school. In 2013, 180 articles documented that physicians are highly dissatisfied with their jobs. This is a testament to how poorly we are balancing work and life (1–4). Interestingly, to my best knowledge, to date only 12 articles have been published specifically addressing work-life balance in Pediatrics (5–16).

Since entering medical school over two decades ago, I reached the conclusion that the concept of work-life balance acts as quicksand in our professional and personal lives resulting in slow drowning in frustration, depression, and exhaustion. The harder we fight the deeper and quicker we sink. Why are we taught to strive for work-life balance in the first place? The entire future of our modern "24/7" society appears to revolve around mastering this concept, with the ultimate promise that – once achieved – we will all be compensated for the misery and sacrifices that we endured along the way. Astoundingly, a recent study reported an almost 20% higher job dissatisfaction rate for physicians than for the general US population (17).

In reality, the concept of work-life balance is imposed upon us by corporations, companies, and employers with the primary intent to maximize our productivity margins at the work place, *not* to improve our emotional or physical well-being. The cold truth is that all corporations are specifically designed to maximize their financial profit, not the happiness or well-being of their employes. For this vitally important reason, we can under no circumstances leave it to our employers to determine the quality of our own lives (18). To maintain intellectual autonomy as individuals, the task of creating our own happiness has to remain in our own hands. Some employers offer a free smartphone, a tabloid, free daycare, or other after-hour programs as part of their "benefits" package, but in reality they just provided us with the means to spend even more time at work or doing work for them.

The new buzz-word in Medicine is "flextime" (19, 20). Besides the fact that for some medical specialties, such as Intensive Care, flextime is a less viable concept than for other specialties, the fact still remains that if *my* time is flexible *somebody* has to work the hours that I find inconvenient. This rarely results in two happy employes. Residents and fellows are now restricted to 80 work hours per week (21) and after subtracting even as little as 6 h of sleep per night, they are left with 46 h per week to fill with "life." Therefore, medical trainees have at best half as many hours available for leisure as they are required to spend at work. Clearly, achieving a work-life balance under these conditions is extremely unlikely, probably even impossible. Importantly, despite work hour restrictions physicians' dissatisfaction with both their jobs and lives is actually at an all-time high and rising (22, 23). One can argue that residency and fellowship are only temporary occupations but in reality I do not remember working any less in medical school or now as an attending. The increased amount of responsibilities assigned to a physician once out-of-training actually accentuates rather than diminishes our daily stress level and results in further spillover of work-time into leisure-time.

As we follow our peers' instructions trying to balance work and life, the question arises: *when* should we achieve this balance and *How do we know* we achieved it? Since most of us enter the workforce as teenagers, would our high school or medical school years be a good time to start embracing this concept? Our early professional career years? At mid-career level? After retirement? While common sense tells us that the pursuit of work-life balance should occur during *all* stages of our careers, we all have a tendency to constantly postpone any significant improvement in our daily quality of life until after the current project is completed, after this service week, after the next promotion, after the kids are out of the house. Just how poorly we balance our work and life throughout our careers was highlighted in a recent study showing that early career physicians had the lowest satisfaction rate with their overall career choice, and mid-career physicians reported the lowest satisfaction rate with their specialty choice and their work-life balance (24). Alarmingly, similar job dissatisfaction rates have been reported for medical students and interns (25). Particularly, the high institutional demands for the new generation of clinician-scientists, which are deeply rooted in our professional culture, add further barriers to a healthy work-life balance (26). Clinician-scientists face additional challenges dealing not only with the separation between work and life but also between clinical care and research. A key reason for early career physicians to leave academic medicine is in fact the disconnection between their own priorities and those of the dominant culture of academic medicine (27). It is obvious that as physicians we are facing tremendous struggles throughout *all* career stages in implementing what would

seem the natural number one priority for our health and happiness, a balanced life-style.

Personally, I concluded that the never-ending chase after work-life balance actually accumulates much more frustration than satisfaction. Regardless of this depressing conclusion, we may not at all be doomed if the true payoff reveals itself not in the chase but in the achievement of work-life balance. This leads me to the second question: *how would we know* that we achieved it? Exactly how much life do we need to balance our work? Will we just wake up one day and feel "balanced"? Unfortunately, the absence of an objective outcome measure makes the chances of ever achieving this goal rather elusive. As the movers and shakers of our industrialized nations continue to promote the work-life balance concept as the Holy Grail of the twenty-first century go-getter mentality, engraining into our minds that a more balanced and happier life lies just around the corner, I cannot help but getting reminded of the entrance gate at Auschwitz displaying "Arbeit Macht Frei" (Work Will Liberate You"). The pursuit of a concept that is intangible and lacks validation is unlikely to result in anything but a sense of failure and helplessness, or what most of us know as "burn-out".

Twenty-four years after entering medical school, after uncountable reminders by my peers at each step of my career that *this right now* is actually the best time of my life, lecture after lecture from medical school through residency and fellowship all the way to today's Faculty Development Program in my Department, I am reminded that without finding that magical work-life balance I cannot, and will not, succeed in this stressful and demanding profession (28, 29). Instead, over the past two decades, I realized that regardless of the number of programs our society develops to promote the concept of a healthy work-life balance it is an indisputable fact that certain career pathways, including modern academic medicine, are inherently incompatible with spending the majority of our time with our families and children, or engaging in certain hobbies such as traveling the world.

All that being said, over the past few years I have adapted a new approach to a healthier and happier life-style that resulted in much greater job satisfaction. While the medical education system has never offered me an alternative solution to living a fulfilled life except the pursuit of work-life balance, I have come to the conclusion that as long as there is a polarity in our daily lives between what we consider work and what we consider life there will always be conflict. Only the abolition of this dichotomy will establish harmony in our lives. Once I was able to integrate rather than separate all my daily activities, harmonize rather than divide my time not only between work and life but also between clinical care and research, the pursuit of balance shifted from work-life to life-nature-universe. The result was an overwhelming daily feeling of "balance." Buddenberg-Fischer recognized in 2008 that "*a well-balanced integration (not separation) of professional and private life is an essential goal for the new generation of doctors*" (30).

The constant pursuit of work-life balance actually worsens rather than improves our quality of life by adding additional, often unrealistic, expectations to our already stressful lives. Uncountable websites and publications promote quick fixes for the "unbalanced" health care worker (31–33). The question remains: can a successful clinician-scientist really eat six small meals a day? Work-out four times a week? Attend all family functions? Spend regular quality time with friends? The root of the problem lies in the fundamental assumption that life is good and work is bad, which is the main reason why we need a work-life balance in the first place. This distinction also implies that life only occurs whenever we are not at work, demoting the importance of work in our lives and projecting unrealistic expectations onto our time-off-work. The feeling that work is externally imposed onto us causes resentment against this activity and victimizes us as employes implying that we are forced to work against our free will. It is a fact that we spend more time at work than with our partners, our families, or in bed. Therefore, to label the majority of our time as unwanted and burdensome translates into increasing exhaustion and frustration at the workplace. This creates enormous pressure on our leisure-time to compensate for all the negative energy that accumulates at work. In return, the inability to accomplish all the regenerating goals, we had set for today results in further desperation and inevitable failure.

All humans have an intrinsic desire to create, to build, and to leave a mark and an impression, as a matter of fact to work. As humans, we have always searched the contact with other humans. We have a desire to share our experiences, creations, and achievements with others. If we consider our time at work as just that, as time with colleagues and friends that allows us to create, to build, and to leave a mark and an impression, then suddenly life has taken over work, and the pursuit of a work-life balance becomes an obsolete concept. Our happiness may in fact have nothing to do with finding balance but much rather, as John Irving writes, with *finding a way of life we love and having the courage to live it.*

If as physicians we stand behind the personal statements we wrote as medical students and our eloquent speeches during job interviews describing that special day we realized we were destined to become a doctor and care for sick children, then we all clearly chose this profession out of free will. If that premise holds true, then the hours spent treating sick children are part of our lives just as much as the hours sipping on a glass of wine, going on a family vacation, or fishing with our buddies. Suddenly, the border between life and work vanished, work became life, and life became work. We all have some better and some worse days, but as physicians by the end of each day we will have made a difference in at least one child's life. If at that moment, we pause for a second acknowledging this incredible achievement, recognizing that we made this world a better place for somebody today, we will experience the indescribable privilege of feeling balanced every day.

Two children died last night during my call in the ICU. One family saved the lives of four children by donating their son's organs. The other family told my team what an honor it was for them to meet us and they will never forget how we helped them cope with the tragic death of their 12-year-old daughter. I am tired, exhausted, and hungry. But right now, I am balanced.

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REFERENCES

1. Rama-Maceiras P, Parente S, Kranke P. Job satisfaction, stress and burnout in anaesthesia: relevant topics for anaesthesiologists and healthcare managers? *Eur J Anaesthesiol* (2012) **29**(7):311–9. doi:10.1097/EJA.0b013e328352816d
2. Roberts DL, Shanafelt TD, Dyrbye LN, West CP. A national comparison of burnout and work-life balance among internal medicine hospitalists and outpatient general internists. *J Hosp Med* (2014) **9**(3):176–81. doi:10.1002/jhm.2146
3. Dyrbye LN, Sotile W, Boone S, West CP, Tan L, Satele D, et al. A survey of U.S. physicians and their partners regarding the impact of work-home conflict. *J Gen Intern Med* (2014) **29**(1):155–61. doi:10.1007/s11606-013-2581-3
4. Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. *Curr Opin Crit Care* (2007) **13**(5):482–8. doi:10.1097/MCC.0b013e3282efd28a
5. Goldacre MJ, Goldacre R, Lambert TW. Doctors who considered but did not pursue specific clinical specialties as careers: questionnaire surveys. *J R Soc Med* (2012) **105**(4):166–76. doi:10.1258/jrsm.2012.110173
6. Takagishi J, Dabrow S. Mentorship programs for faculty development in academic general pediatric divisions. *Int J Pediatr* (2011) **2011**:538616. doi:10.1155/2011/538616
7. Fruge E, Lakoski JM, Luban N, Lipton JM, Poplack DG, Hagey A, et al. Increasing diversity in pediatric hematology/oncology. *Pediatr Blood Cancer* (2011) **57**(1):147–52. doi:10.1002/pbc.22977
8. Katz A, Mallory B, Gilbert JC, Bethel C, Hayes-Jordan AA, Saito JM, et al. State of the practice for pediatric surgery – career satisfaction and concerns. A report from the American Pediatric Surgical Association Task Force on Family Issues. *J Pediatr Surg* (2010) **45**(10):1975–82. doi:10.1016/j.jpedsurg.2010.05.011
9. Yao SQ, Tian L, Pang BD, Bai YP, Fan XY, Shen FH, et al. Investigation on job stress of pediatricians and nurses working in pediatric department. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi* (2008) **26**(9):529–32.
10. McPhillips HA, Burke AE, Sheppard K, Pallant A, Stapleton FB, Stanton B. Toward creating family-friendly work environments in pediatrics: baseline data from pediatric department chairs and pediatric program directors. *Pediatrics* (2007) **119**(3):e596–602. doi:10.1542/peds.2006-2397
11. Smith NP, Dykes EH, Youngson GS, Losty PD. Is the grass greener? A survey of female pediatric surgeons in the United Kingdom. *J Pediatr Surg* (2006) **41**(11):1879–81. doi:10.1016/j.jpedsurg.2006.06.015
12. Sectish TC, Zalneraitis EL, Carraccio C, Behrman RE. The state of pediatrics residency training: a period of transformation of graduate medical education. *Pediatrics* (2004) **114**(3):832–41. doi:10.1542/peds.2004-0088
13. Caniano DA, Sonnino RE, Paolo AM. Keys to career satisfaction: insights from a survey of women pediatric surgeons. *J Pediatr Surg* (2004) **39**(6):984–90. doi:10.1016/j.jpedsurg.2004.02.039
14. Cull WL, Mulvey HJ, O'Connor KG, Sowell DR, Berkowitz CD, Britton CV. Pediatricians working part-time: past, present, and future. *Pediatrics* (2002) **109**(6):1015–20. doi:10.1542/peds.109.6.1015
15. Shugerman R, Linzer M, Nelson K, Douglas J, Williams R, Konrad R. Pediatric generalists and subspecialists: determinants of career satisfaction. *Pediatrics* (2001) **108**(3):E40. doi:10.1542/peds.108.3.e40
16. Whitelaw CM, Nash MC. Job-sharing in paediatric training in Australia: availability and trainee perceptions. *Med J Aust* (2001) **174**(8):407–9.
17. Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med* (2012) **172**(18):1377–85. doi:10.1001/archinternmed.2012.3199
18. Available at: http://www.ted.com/talks/nigel_marsh_how_to_make_work_life_balance_work.2010
19. Tucker P, Brown M, Dahlgren A, Davies G, Ebden P, Folkard S, et al. The impact of junior doctors' worktime arrangements on their fatigue and well-being. *Scand J Work Environ Health* (2010) **36**(6):458–65. doi:10.5271/sjweh.2985
20. Shanafelt TD, West CP, Poland GA, LaRusso NF, Menaker R, Bahn RS. Principles to promote physician satisfaction and work-life balance. *Minn Med* (2008) **91**(12):41–3.
21. Typpo KV, Tcharmtchi MH, Thomas EJ, Kelly PA, Castillo LD, Singh H. Impact of resident duty hour limits on safety in the intensive care unit: a national survey of pediatric and neonatal intensivists. *Pediatr Crit Care Med* (2012) **13**(5):578–82. doi:10.1097/PCC.0b013e318241785c
22. Teixeira C, Ribeiro O, Fonseca AM, Carvalho AS. Burnout in intensive care units – a consideration of the possible prevalence and frequency of new risk factors: a descriptive correlational multicentre study. *BMC Anesthesiol* (2013) **13**(1):38. doi:10.1186/1471-2253-13-38
23. de Oliveira GS Jr, Chang R, Fitzgerald PC, Almeida MD, Castro-Alves LS, Ahmad S, et al. The prevalence of burnout and depression and their association with adherence to safety and practice standards: a survey of United States anesthesiology trainees. *Anesth Analg* (2013) **117**(1):182–93. doi:10.1213/ANE.0b013e3182917da9
24. Dyrbye LN, Varkey P, Boone SL, Satele DV, Sloan JA, Shanafelt TD. Physician satisfaction and burnout at different career stages. *Mayo Clin Proc* (2013) **88**(12):1358–67. doi:10.1016/j.mayocp.2013.07.016
25. Chaudhuri E, Mason NC, Newbery N, Goddard AF. Career choices of junior doctors: is the physician an endangered species? *Clin Med* (2013) **13**(4):330–5. doi:10.7861/clinmedicine.13-4-330
26. Strong EA, De Castro R, Sambuco D, Stewart A, Ubel PA, Griffith KA, et al. Work-life balance in academic medicine: narratives of physician-researchers and their mentors. *J Gen Intern Med* (2013) **28**(12):1596–603. doi:10.1007/s11606-013-2521-2
27. Levine RB, Lin F, Kern DE, Wright SM, Carrese J. Stories from early-career women physicians who have left academic medicine: a qualitative study at a single institution. *Acad Med* (2011) **86**(6):752–8. doi:10.1097/ACM.0b013e318217e83b
28. Chittenden EH, Ritchie CS. Work-life balancing: challenges and strategies. *J Palliat Med* (2011) **14**(7):870–4. doi:10.1089/jpm.2011.0095
29. Balch CM, Shanafelt T. Combating stress and burnout in surgical practice: a review. *Adv Surg* (2010) **44**:29–47. doi:10.1016/j.yasu.2010.05.018
30. Buddeberg-Fischer B, Stamm M, Buddeberg C, Klaghofer R. The new generation of family physicians – career motivation, life goals and work-life balance. *Swiss Med Weekly* (2008) **138**(21–22):305–12.
31. Bittner JG, Khan Z, Babu M, Hamed O. Stress, burnout, and maladaptive coping: strategies for surgeon well-being. *Bull Am Coll Surg* (2011) **96**(8):17–22.
32. Shanafelt TD, Oreskovich MR, Dyrbye LN, Satele DV, Hanks JB, Sloan JA, et al. Avoiding burnout: the personal health habits and wellness practices of US surgeons. *Ann Surg* (2012) **255**(4):625–33. doi:10.1097/SLA.0b013e31824b2fa0
33. Burks DJ, Kobus AM. The legacy of altruism in health care: the promotion of empathy, prosociality and humanism. *Med Educ* (2012) **46**(3):317–25. doi:10.1111/j.1365-2923.2011.04159.x

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Dichotomy of Tenure and Biomedical Engineering Research with a Purpose in an Academic Setting

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Keywords: tenure, academia, PhD, career, STEM

I am one of the many biomedical engineering researchers whose work is built on strong interactions with physicians and basic scientists who find value in the way we approach healthcare problems from alternate perspectives. For example, I collaborated with multiple lung critical care physicians in the past 5 years, one of whom was a pediatric critical care physician at a children's hospital in Memphis, TN, USA. We met regularly in lung physiology research meetings organized by our mentor to discuss problems relating to pediatric lung health, and we carried out research activities to understand the role of mechanobiology of potassium channels in the context of mechanical ventilation (1, 2). In addition to these types of research collaborations, biomedical engineers in academia contribute to the healthcare of pediatric patients also via design initiatives. Just yesterday, I listened to a set of senior design projects that displayed prototypes of at-home mechanical ventilator systems for young children aimed to increase their mobility. These projects were based on collaborations established between the therapists, clinicians, and professors at multiple institutions (Le Bonheur Children's Hospital, University of Memphis, University of Tennessee Health Science Center). As such, most would agree with me in saying that these collaborations are important and necessary to develop and optimize healthcare solutions.

We, on the biomedical research side, are aware of and sensitive to the issues clinicians are facing with regards to work–life balance and dropout. Here, I want to present that there are similar concerns in academic biomedical research as well. They stem from similar stressors relating in great part to the early career hiring practices. Particularly, academic research in biomedical engineering is highly demanding and competitive in large part due to a pressure cooker entry period: tenure. Any conversation regarding work–life balance in academia must include the long lasting scars these junior years leave in our lives and careers, whether we succeed or fail. In the years of the "probationary" period toward tenure, an assistant professor is asked to teach, research, publish, and raise funds. Depending on the university, these may carry different weights, but in this newer academic climate, where the support for higher education is declining, fundraising is a top priority. In order to secure funding, we write grant applications with research ideas that sound non-risky to reviewers that are curbed versions of our original ideas (3). In order to become fundable, we publish as many papers as quickly as we can. All of these add up to countless hours of work countered by numerous critical reviews, which we learn slowly to accept, read, and respond. Although one can conduct biomedical research outside of academia, many believe in the strong inter-disciplinary research between medical schools and engineering colleges that it can provide the answers to some of our greatest healthcare problems. Thus, many of us chose an academic career over the more lucrative industrial careers for the intellectual freedoms and the possibility of finding meaningful careers through teaching and research.

A stable career in biomedical research is rewarded after the successful completion of a race, a *marathon,* which includes many forms of training years followed by the time-limited probationary tenure period. We do not perceive it as a race until a few years into the tenure process, we realize that it is indeed a race against time. Once the elation of securing a highly competitive tenure-track position dissipates, the perception of the race solidifies. Submission of grants, number of publications,

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funds generated, and students graduated become markers of success. In rare moments of calm between submissions, graduations, and evaluations, small amounts of doubt about the purpose underlying day-to-day activities creeps in, but it is erased quickly as the momentum generated at the beginning of the race moves us forward *mindlessly*.

As we get our tenure clock started, what is not explicit in our minds is that the tenure period lines up with the time that we form families or start setting roots within our communities. The former is key to academic careers, especially for female faculty members. It is reported that family formation is a negative factor for women in achieving tenure, whereas it has a net positive impact on men's tenure prospects (4). In fact, an assistant professor who is female and has children works 100-plus hours a week in all parts of her life while dedicating 52.5 h per week to her academic work, whereas a male assistant professor works overall 88 h per week overall, of which 56.3 h go toward professional duties (5). As the definition of the modern family evolves, it is certain that these numbers will change. I can certainly speak of my experience, which has been on target with the overall number of hours worked in a week, but I was able to dedicate more time to professional activities due to my husband's major contributions to parenting and household management.

While we are on our tenure race, as we aim to balance all aspects of life on our shoulders, we begin to sense the reality of contemporary academic job description, which primarily involves external fundraising. This mindset is especially prevalent in engineering colleges due to the fact that many consider engineering to be lucrative in raising funds, specifically, biomedical engineering, as there is a high level of investment by the private sector in biotechnology development and innovation. Inadvertently, it is even difficult to admit that these lead many early career researchers to work toward meeting *target metrics* to attain tenure, and possibly lose touch with the purpose of the work that attracted them to the field.

Is it possible that working mindlessly toward tenure in this academic climate is the major reason fueling work–life balance inquiries in biomedical research at mid-career, even after tenure? Although philosophical in nature, this question has real life implications such as the low *retention* rates of female faculty or female workforce in science, technology, engineering, and mathematics (STEM) all together. A survey of global science, engineering, and technology companies in a Harvard Business Review Report revealed that more female engineers, scientists, and technologists quit their jobs mid-career, about 10 years in, compared to male counterparts (6). Another study showed that approximately 50% women in STEM left their careers by the 12th year, whereas only 20% of the women in other professional occupations exited their career by the end of a 30 year span (7). Meanwhile, a similar trend was shown for academia indicating the presence of fewer full professor women than assistant professor ones in the STEM fields (4). Although a multitude of reasons are provided elsewhere, one finding stands out that women faculty are less satisfied than male faculty (8). The source of this dissatisfaction can be attributed to factors such as the environment, lack of role models, etc. Interestingly, the dissatisfaction and dropout may also be associated with one innate difference in how men and women approach their work and career: women place higher value on work that contributes to the society having a *purpose* (9).

This line of thinking suggests that the problem is not a work–life balance issue because there is none when we are dedicated to our work! The underlying issue is whether we perceive the work to which we are dedicating a substantial part of our life is worth doing so. If it is meaningful, then work and life activities *integrate* naturally, which leads to greater overall satisfaction and higher productivity as reflected in Dr. Langer's work (10). Clinicians and physicians have direct interactions with patients whose lives they impact and save. In the academic biomedical research, we may never see the fruits of our work making a difference in someone's life. As the demands of tenure mount and the morale in academic workforce drops with each new manufactured metric of institutional success, we find that our day-to-day work contributes less to the society; we begin to raise concerns over work–life balance and wonder if all of what we do is worth the personal cost.

While we await far-reaching solutions, such as increasing science funding and institutional modernization of the tenure and promotion process, we can do some simple things to help with these issues encountered by some. We can begin by examining the solutions suggested for the STEM women in the industry. Among them are job sharing, flexible careers, extended maternity leaves, sideways moves in careers. Implementation of some of these solutions may require changing of the tenure process or eliminating it all together, neither of which will occur in the near future. One answer may be to provide alternative, non-tenure track, sustainable academic research careers where one can expect long-term employment rather than the usual 2-year post-doctoral or research assignments that are highly dependent on external funding obtained by the principal investigator. This unstable situation of employment and income leaves many young researchers, some of whom are supporting families, frustrated and leads them to alternate careers.

Another important aspect in this conversation is the education of pre-doctoral students about an academic career in biomedical engineering research. For example, I was not aware that beginning of a career in biomedical research is similar to starting a small company, where one has to devise and market ideas, become proficient in finance, learn to manage people, etc. Moreover, up until 1 year into my first academic position as a research assistant professor (non-tenure track), I did not know much about the fact that academic research careers are extremely *competitive*, more so than most industrial careers in my field! As such, I suggest that until the funding levels increase and tenure is modernized, we inform and train younger engineering scientists to face these challenges. My interactions with PhD students in the biomedical research field tell me that many students do not understand the job description of a contemporary faculty member in the field. As a junior faculty who just went through the tenure process, I think this information *must* be presented to the students alongside training that involves budgeting, time management skills, etc. Above all, I wholeheartedly feel that the information has to be delivered in a mindful way through mentoring activities and conversations, where realistic undertones prevail over pessimistic ones.

For some of us, work–life balance questions resonate because we are unhappy with the current system. In the meantime, we are thankful to have the opportunity of tenure or a job in biomedical engineering research, which could be considered a form of art where we utilize math and sciences as our media to generate novel solutions that improve healthcare of patients. The essence of this work is intense, creative, and purposeful. However, the system is now skewed such that it is built on funding dollars and numbers met in institutional metrics. I am, for one, an engineer driven by numbers, and I believe that we as faculty should be measured and accountable for the ways we serve the community. The question is: how? When your aim is to understand how the alveolar epithelial cells in the lung are injured with mechanical ventilation to save patients with ARDS, what metrics should you use to measure the success of this research? Number of papers published? Amount of external research dollars? So long as these remain the metrics used to measure our work leading to tenure and promotion, they will also lead to discontent in academia and to dropout at the end. There is also a strong possibility that these metrics are particularly damaging to careers of women who are shown to value purposeful work that benefits the society more than male counterparts. In conclusion, I think that adjusting the new institutional metrics to reflect quality and purposeful work would significantly lower the work–life balance issues associated with biomedical research in academia and lead to less dropout rates in STEM academic fields in general. Whether this is achievable remains to be seen.

REFERENCES

1. Roan E, Waters CM, Teng B, Ghosh M, Schwingshackl A. The 2-pore domain potassium channel TREK-1 regulates stretch-induced detachment of alveolar epithelial cells. *PLoS One* (2014) **9**:e89429. doi:10.1371/journal.pone.0089429
2. Schwingshackl A, Roan E, Teng B, Waters CM. TREK-1 regulates cytokine secretion from cultured human alveolar epithelial cells independently of cytoskeletal rearrangements. *PLoS One* (2015) **10**:e0126781. doi:10.1371/journal.pone.0126781
3. Voosen, P. *For Researchers, Risk is a Vanishing Luxury. The Chronicle of Higher Education [Online]* (2015). Available from: http://chronicle.com/article/For-Researchers-Risk-Is-a/234437
4. Williams WM, Ceci SJ. When scientists choose motherhood: a single factor goes a long way in explaining the dearth of women in math-intensive fields. How can we address it? *Am Sci* (2012) **100**:138–45. doi:10.1511/2012.95.138
5. Mason MA, Goulden M. *Do Babies Matter? Gender and Family in the Ivory Tower*. New Jersey, NY: Rutgers University Press (2013).
6. Hewlett SA, Buck Luce C, Servon LJ. *The Athena Factor: Reversing the Brain Drain in Science, Engineering, and Technology*. Watertown, MA: Harvard Business School Publishing Corporation (2008).
7. Glass JL, Sassler S, Levitte Y, Michelmore KM. What's so special about STEM? A comparison of women's retention in STEM and professional occupations. *Soc Forces* (2013) **92**:723–56. doi:10.1093/sf/sot092
8. Bozeman B, Gaughan M. Job satisfaction among university faculty: individual, work, and institutional determinants. *J Higher Educ* (2011) **82**:154–86. doi:10.1353/jhe.2011.0011
9. Hill C, Corbett C, St. Rose A. *Why So Few? Some in Science, Technology, Engineering, and Mathematics?* Washington, DC: American Association of University Women (2010).
10. Harvard Business Review Staff. *Mindfulness in the Age of Complexity. Harvard Business Review [Online]* (2014). Available from: https://hbr.org/2014/03/mindfulness-in-the-age-of-complexity

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Work–Life Balance: Can You Actually Make That Happen?

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Keywords: biomedical research, working mother, efficiency, work–life balance, stress

Let me start off by saying – there is no such thing as "work–life balance" in a biomedical research career. In today's modern society, the world is evolving at an unprecedented fast pace. The speed of progress in the biomedical research field is astonishing. The publications indexed by PubMed was ~9,000 during 2000 and increased to ~60,000 during 2013 (1). Unfortunately, the growth of federal and private funding for biomedical research is much slower. In fact, it is estimated that the resources that National Health Institutes retains today are less than 75% than they were in 2003 (2). The ever-increasing competition for funding makes work–life balance almost impossible. From a personal perspective, I have not yet encountered a successful scientist with a laid-back lifestyle throughout my research career from 2004 (when I became a graduate student) to present day. In fact, in my experience, most successful scientists struggle with busy schedules and lack of work–life balance. My Ph.D. mentor – Dr. Stephania Cormier – who is a tenured, full professor now, started her career as an assistant professor in 2002. She is highly intelligent and disciplined to a level that intimidates people; however, she still constantly works during weekends and holidays to clear off her work lists. When I was a student or postdoctoral trainee, I dedicated my life to research. Some of my experiments were inherently time-consuming, so I had to stay up till 03:00 a.m. the next day although I started at 07:00 a.m. At times that I returned home at regular hours, I read papers, books or tutorials related to my research. I did not have a life outside of my research, and at that time I did not feel that I needed one. Research was fun and the excitement from a successful experiment, publication, or presentation for a national meeting was satisfying… until my son Arthur was born 3 years ago. He is demanding and exhausting, but also amazingly adorable. Naturally, as a mother I want to spend time with him, and do not want to miss a single step that he makes as he grows up. This change in my life inevitably affected my dedication to my career. All the extra hours that I used to commit to research are gone; I suddenly need a life away from the bench. The only option I have is to achieve a work–life balance, even if it seems a "mission impossible."

This may sound depressing, but realizing the truth is the first step to fix the problem. The problem is time! My workload has remained relatively the same, but now the time I have to complete tasks is about two-thirds of the time I had before having my son. This means that I must increase my efficiency at work one-and-a-half fold. To most scientists, including myself, who are already highly efficient, it is difficult to further increase efficiency. With this in mind, I have researched effective time management methods and practiced a few principles (3, 4). Here are some tips that have really helped me.

PRIORITIZE THE NIGHT BEFORE

Every evening before I go to bed, I go through a list of tasks that needs to be completed, and plan my time for the next day. Some may prefer to prioritize tasks every morning, I have just found that I sleep better if I know exactly how the following day will look like and I wake up with a clear mind, focused on my priorities of the day. How to prioritize tasks is an art in itself, especially when there are so many things that seem equally important at the time. One key principle to keep in mind is to

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only schedule about two-thirds of the work time. For example, if I plan to work 8 h, then I only schedule 5-h workload. The reason behind this is that if I can focus on the priorities for 5 h, most of time I can finish them with high efficiency. The other 3 h is for unscheduled interruptions that happen every day. In order to schedule just enough workload, I need to have a fairly accurate estimation of the time of each task. I achieved this by logging my activity each day for about a half year and then averaging the time that I spent on each task. Another important principle is to start the day with the most difficult task so that the day gets easier when your energy level and focus gradually goes down.

DO NOT MULTITASK

Multitasking may help increase efficiency if the tasks are not very demanding (5). Unfortunately, most of the daily tasks that a scientist takes need focus, such as writing, reading, and troubleshooting experiments. Multitasking on these tasks will only distract you and decrease your efficiency (6). When I write grants or manuscripts, I make sure that I have dedicated writing time and I minimize distractions. After shutting the office door, turning off Outlook, and putting away my phone, I write for about 45 min. Then I try to answer emails and phone calls in 20 min and go back to writing for another 45 min and so on. In this way, I only focus on one thing at a time and it actually increases my efficiency.

GET HELP

I have a very shy personality and asking for help does not come naturally to me. However, I realized that I have to do this to be able to survive and be successful at my job. I ask for all kinds of help, work and non-work related. My mother stayed with us when Arthur was born. I "bother" my mentors with grants, manuscripts, teaching skills, and even my struggles with work–life balance. I submit my manuscripts/grants to internal editing before actual submission. Nevertheless, the most help I get is from graduate students and postdoctoral trainees. I cannot do the experiments all by myself; in fact, trainees in a typical laboratory setting perform most experiments. There is plenty of information out there about how to find a good student and a postdoctoral trainee. I personally do not have much experience in the interviewing and hiring process as a young scientist. However, my experience has shown me that finding a motivated and personality-matched trainee is the key in research where experimenting is the cornerstone. Besides getting help on performing experiments, I also ask trainees to help me review or write manuscripts/grants. This is a win–win situation. The trainees obtain adequate training on manuscripts/grants writing skills during the actual process of helping complete these tasks. This mentoring method has been demonstrated successfully elsewhere (4).

EXERCISE

Everyone can see the benefits of exercising. It boosts your health and energy and, therefore, in the long run, it will increase work efficiency and quality of life in general. What I want to emphasize is that exercise is the perfect time for multitasking! I exercise regularly about four times a week, with a six- to eight-mile run during weekends. While exercising, I often think about the big questions in my life: is there anything that I am not happy about myself at work or in my personal life? How will I fix it? I also think about specific aspects of my work: why is my data not consistent? How do I probe my hypothesis by an experiment? What will be the next big wave of progress in my research field? In fact, I would say running is the most quality time I have for thinking. There is ample evidence suggesting that creativity happens in a moment that the brain is not highly focused nor distracted (7). This is called the drifting phase of the brain. When running, my mind wanders, takes its time, and eventually centers on the questions aforementioned. The benefit is enormous and running is not at all boring to me. My suggestion is to find a way to exercise regularly with no interruptions and just enjoy the Zen moment.

BE FLEXIBLE AND PREPARED FOR UNCERTAINTY

When I was a student and a postdoctoral trainee, I had a fairly fixed schedule due to my experiments. I worked with neonatal mice, and when the mice were born, I had to do the experiments on certain days, irrespective of weekends or not. When I did flow cytometry experiments, it was a 13-h procedure. I had limited control of my schedule. Now that most of my time is spent on writing grants, manuscripts, and reading, I find myself having the luxury of a more flexible schedule. I can work from home if Arthur is sick, or the daycare is closed. I can shuffle my tasks around so small tasks can fit into my schedule. However, everyone who writes knows that writing and thinking need continuous motion. The time from being interrupted to return to focus mode varies among people, but decreasing this time is the key for being efficient and flexible at work. I myself still struggle with it. I can hardly concentrate when Arthur is around and asking questions all the time. So while I can work from home when he is sick, my efficiency is low. The only trick that works for me is meditation and I am still not satisfied with my progress.

Being flexible also means to be prepared for uncertainty. I find myself, as many working moms, constantly dealing with chaos due to unexpected reasons related to my son. I unfortunately learned in a hard way that procrastination is not an option and completing tasks ahead of time is the only way to be prepared for uncertainty (3). One day, I was going to give a lecture in the evening. I had scheduled the whole day for preparation since it was my first lecture on that topic. However, my son's daycare was unexpectedly closed and I had to prepare the lecture while my son was around. The efficiency was of course extremely low and I barely made my slides on time. The lecture turned out OK, but I wished that I had prepared the lecture much earlier. With uncertainty in mind, I now always try to finish important tasks ahead of time.

Finally, keep in mind that it is OK if your work–life balance is temporarily broken. Nobody can completely control life. And if so, what is the fun of life? So be open-minded, embrace the uncertainty, and accept the interruption. As a matter of fact, I stayed up late last night to write this article and I am still late for the deadline to my editor. "*C'est la vie*." Live with it.

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REFERENCES

1. Dan Corlan A. *Medline Trend: Automated Yearly Statistics of PubMed Results for Any Query*. (2004). Available from: http://dan.corlan.net/medline-trend.html
2. Alberts B, Kirschner MW, Tilghman S, Varmus H. Rescuing US biomedical research from its systemic flaws. *Proc Natl Acad Sci U S A* (2014) **111**(16):5773–7. doi:10.1073/pnas.1404402111
3. Powell K. Work–life balance: lab life with kids. *Nature* (2015) **517**:401–3. doi:10.1038/nj7534-401a
4. Iwasaki A. Balancing family life with a science career. *Nat Immunol* (2015) **16**:787–90. doi:10.1038/ni.3199
5. Schumacher EH, Seymour TL, Glass JM, Fencsik DE, Lauber EJ, Kieras DE, et al. Virtually perfect time sharing in dual-task performance: uncorking the central cognitive bottleneck. *Psychol Sci* (2001) **12**(2):101–8. doi:10.1111/1467-9280.00318
6. Levy J, Pashler H. Is dual-task slowing instruction dependent? *J Exp Psychol Hum Percept Perform* (2001) **27**(4):862–9. doi:10.1037/0096-1523.27.4.862
7. Sawyer K. The cognitive neuroscience of creativity: a critical review. *Creat Res J* (2011) **23**(2):137–54. doi:10.1080/10400419.2011.571191

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Balance is in the moment

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Keywords: work-life balance, work-life conflict, working mother, pediatrics, burnout

We do not remember days, we remember moments
Cesare Pavese

Physician burnout is a real phenomenon that impacts us all, even from the early days of our training in medical school, residency, and fellowship (1). In a recent study by Goldhagen et al., the investigators reported an alarmingly high rate of burnout (approximately 80%) among resident physicians (2). As a mother of two young boys, a pediatric intensivist, and a physician scientist, I am acutely aware of the need for work-life balance. How do we strike this mythical balance, when each aspect of our lives, in their respective roles demands our fullest attention? When I am on service in the Pediatric Intensive Care Unit (PICU), my time and energy is entirely focused on my patients. When I am running a critical experiment in the laboratory, successful execution of the procedures is the priority, regardless of the time of day. When I am with the boys, I embrace my role as their mom, teacher, and friend, not as a physician scientist. Is it possible for us to have it all? Physicians, especially those who work in the front line of medicine are more likely to experience burnout and dissatisfaction with their work-life balance compared to the general population (3). The implications are significant, as those in our field are at increased risk for having depression, suicidal ideation, failed relationships, substance abuse, and addiction (4–7). Just as important, these issues can extend to our professional life, with serious consequences on patient care and the health care system (8–10).

For me, balance is found in the *pause* – at that moment when we stop to reflect and consider life. When I first became an attending, I took care of a child[1] and family who made a profound impact on me. He was 5 years old, and had a neuro-metabolic condition that affected his mobility and left him mostly blind. He presented to the PICU with an acute illness, and despite all our efforts, it became clear that his outcome was poor. It was early in the morning, and I was sitting with the mother near his bedside. There were a lot of hustle and bustle in his room, but for his mom and me, it was quiet. She was telling me about this little boy's childhood, his love for life despite all his challenges and limitations. Just a few nights prior, he was caught on video, dancing to his favorite band. We laughed together as we watched it, and reflected on the life that he had. He passed away soon after, in the arms of his parents. As physicians, we are trained to fix the problem – if the blood pressure is too low, give more volume or tirate the inotropes. Respiratory failure? Intubate and secure the airway. Renal failure? Initiate dialysis. All necessary steps and procedures, but in our efforts to treat our patients, sometimes we forget about who the patient is, their life and person. The mother later told me that in reflecting on her son's life, in having that moment during such an overwhelming time of crisis, it helped her in letting go, and in saying goodbye to her son. For me, it reaffirmed the importance of always treating the patient and not the disease – for us all; it is ultimately about life, even in moments of death. I went home the next morning, and spent the day in the park with the boys. Every now and then, especially during an immensely busy day, I pause to reflect on the life that is given to me, and in that moment, I find balance.

Balance is also fluid and dynamic, not static. It is realizing that at any one moment in time, there is a task (or person) that is the most important, and needs to be on the top of our priority list. To maintain balance, it requires us to be flexible and to be able to shift with our priorities. It also means

[1] All identifying information has been removed

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that we are willing to forgive ourselves and to let go of any self-judgment that may surround our decisions at that point in our lives, and accepting that all things cannot be equal in a given space. The notion that we can have it all, and do it all, without any need for priorities is a fallacy. When I was submitting my National Institutes of Health grant, I spent many waking hours and energy on the submission, especially as the dateline drew closer. This meant less time with family and friends, but it also forced me to ensure that whatever time spent was quality time. The ability to prioritize, and to edit our personal and professional life to matters that are of significance is critical in achieving balance.

In this twenty-first century and the era of technology, we are now a generation of physicians who are uber-connected. We are plugged in 24/7, and have the knowledge of our field at our fingertip. We have apps and notifications that alert us to the newest articles and novel findings within our subspecialty. We are connected with our friends and colleagues on social media, and have instant access to our networks online. In such an era of constant connection, it is easy to be caught up in the busyness of life. We learn the value of corporate citizenship, and in our eagerness to be team players, we take on tasks and projects for the sake of the tasks, and nothing more. To have a balance life, perhaps it requires that we get unplugged once in a while. There is extreme value in quiet thinking and solitude. As a distance runner, I value the time spent on trails, before the crack of dawn, with just my thoughts and me. Such a time of solitude often allows me the opportunity to reflect on my life, gain insights, and re-energizes me for the commitment and energy that is necessary to be a successful working mother and physician scientist. Protection of our private time, even if it is a small part of our day is critical to prevent burnout in an already highly charged and stressful career.

Physicians have been reported to work a median of 10 h more per week than the general population, with 37.9% working more than 60 h per week (3). It is not surprising then that 40.1% of physicians report that there was insufficient time for personal or family life (3). In a survey of physicians in the United States and their partners, Dyrbye et al. reported that work-life conflict were more common among female physicians, and those who were younger, worked longer hours, and practiced in academic medicine (11). Numerous strategies have been suggested to reduce this conflict include job sharing, having flexible work hours, stress management, resilience training, nurturing wellness strategies. and seeking work equity policies (12–15). In a randomized clinical trial involving physicians in an academic medical center, a facilitated small-group curriculum provided sustained improvement in meaning and work engagement, with reduced sense of depersonalization (16).

From my vantage point as a working mother, balance requires that we have a strong network of support and collaboration. If nothing else changes, we must be able to embrace the idea that asking for help is not a sign of weakness. Hiring a housekeeper, and having ready-made meals delivered to the house on occasions do not make us less of a parent or spouse. Instead, having the support of these home services allow for less exhaustion and more quality time with family and friends. At work, having advanced practice providers, such as nurse practitioners and physician assistants can contribute to work productivity. In the same way, having a scribe for data entry into the research database allows for more time in the laboratory for research planning and execution. It is critical to have collegiality at work, to be surrounded by a group of colleagues whom we can lean on, share our challenges, and celebrate each other's success. It means having colleagues who serve as sounding boards, and mentors. It also translates to having peers who can cover our clinical service week when there is a sick child at home, or help in the unit even when they are not on service, an action that is reciprocated when necessary.

To achieve balance, we also need to be content. This does not mean settling for second best, and not striving to be the best that we can in our chosen field. However, it does mean that at any stage that we are in, we need to fully appreciate what we have, and not go through the motions in order to obtain the next paper, grant or promotion. After all, what is the worth of status, or a title if we stop doing things that we love and are passionate about, and have no one to share it with. Happiness is in the moment, and not in the future when we achieve a particular goal. We will find balance if our life and work is driven by purpose and the desire to make an impact in this world. It is possible to love both our work and our life, where there is meaning and significance, even in the smallest task. It is to accept that our definition of balance for today is not the same as for tomorrow as it is a shifting equilibrium. Once we have defined that balance for the moment, we accept the implications and choices that have to be made for supporting our decisions, and know that we are living our life to the fullest.

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REFERENCES

1. Dyrbye LN, West CP, Satele D, Boone S, Tan L, Sloan J, et al. Burnout among U.S. medical students, residents, and early career physicians relative to the general U.S. population. *Acad Med* (2014) **89**(3):443–51. doi:10.1097/ACM.0000000000000134
2. Goldhagen BE, Kingsolver K, Stinnett SS, Rosdahl JA. Stress and burnout in residents: impact of mindfulness-based resilience training. *Adv Med Educ Pract* (2015) **6**:525–32. doi:10.2147/AMEP.S88580
3. Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among U.S. physicians relative to the general U.S. population. *Arch Intern Med* (2012) **172**(18):1377–85. doi:10.1001/archinternmed.2012.3199
4. Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). *Am J Psychiatry* (2004) **161**(12):2295–302. doi:10.1176/appi.ajp.161.12.2295
5. Shanafelt TD, Balch CM, Dyrbye L, Bechamps G, Russell T, Satele D, et al. Special report: suicidal ideation among American surgeons. *Arch Surg* (2011) **146**(1):54–62. doi:10.1001/archsurg.2010.292
6. Oreskovich MR, Shanafelt T, Dyrbye LN, Tan L, Sotile W, Satele D, et al. The prevalence of substance use disorders in American physicians. *Am J Addict* (2015) **24**(1):30–8. doi:10.1111/ajad.12173

7. Dyrbye LN, West CP, Satele D, Sloan J, Shanafelt TD. Work-home conflict and burnout among academic internal medicine physicians. *Arch Intern Med* (2011) **171**(13):1207–9. doi:10.1001/archinternmed.2011.289
8. Shanafelt TD, Balch CM, Bechamps G, Russell T, Dyrbye L, Satele D, et al. Burnout and medical errors among American surgeons. *Ann Surg* (2010) **251**(6):995–1000. doi:10.1097/SLA.0b013e3181bfdab3
9. West CP, Tan AD, Habermann TM, Sloan JA, Shanafelt TD. Association of resident fatigue and distress with perceived medical errors. *JAMA* (2009) **302**(12):1294–300. doi:10.1001/jama.2009.1389
10. Dyrbye LN, Shanafelt TD. Physician burnout: a potential threat to successful health care reform. *JAMA* (2011) **305**(19):2009–10. doi:10.1001/jama.2011.652
11. Dyrbye LN, Sotile W, Boone S, West CP, Tan L, Satele D, et al. A survey of U.S. physicians and their partners regarding the impact of work-home conflict. *J Gen Intern Med* (2014) **29**(1):155–61. doi:10.1007/s11606-013-2581-3
12. Gautam M. Women in medicine: stresses and solutions. *West J Med* (2001) **174**:37–41. doi:10.1136/ewjm.174.1.37
13. Balch CM, Freischlag JA, Shanafelt TD. Stress and burnout among surgeons: understanding and managing the syndrome and avoiding the adverse consequences. *Arch Surg* (2009) **144**:371–6. doi:10.1001/archsurg.2008.575
14. Surawicz CM. J. Edward Berk distinguished lecture: avoiding burnout: finding balance between work and everything else. *Am J Gastroenterol* (2014) **109**(4):511–4. doi:10.1038/ajg.2014.44
15. Sood A, Prasad K, Schroeder D, Varkey P. Stress management and resilience training among Department of Medicine faculty: a pilot randomized clinical trial. *J Gen Intern Med* (2011) **26**(8):858–61. doi:10.1007/s11606-011-1640-x
16. West CP, Dyrbye LN, Rabatin JT, Call TG, Davidson JH, Multari A, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. *JAMA Intern Med* (2014) **174**(4):527–33. doi:10.1001/jamainternmed.2013.14387

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OPINION
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Moral Distress in the Everyday Life of an Intensivist

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A regular work day for intensivists can be emotionally draining, as we witness suffering, fear, pain, tragedies, unfair treatment of children, death…. We may experience the mental stress of dealing with nursing shortages, increasing family demands, and frustration related to interpersonal conflicts (e.g., between parents and specialists) among other issues (1). For the most part, we learn to manage this type of stress.

Several studies involving nearly every medical and surgical specialty indicate, however, that approximately one of every three physicians experiences burnout at any given time. Burnout is characterized by behaviors such as losing enthusiasm for work (emotional exhaustion), treating people as if they were objects (depersonalization), and having a sense that work is no longer meaningful (low personal accomplishment) (2).

Physicians, like other health-care professionals, can be at risk for another phenomenon, that of moral distress (MoD). This concept emerged in nursing ethics: "a challenge that arises when one has an ethical or moral judgment about care that differs from those who are in charge" (3). Thus, institutional constraints were seen as its key source (inadequate staffing, other professionals' influence, family or patient choices, administrative agendas, institutional policies, and legislation) (3). Unlike a *moral dilemma* in which one is uncertain what ethical action to take, MoD is experienced by those who feel constrained from acting on their ethical judgment. Constraints are still recognized frequently as external, institutional ones (4). Internal constraints may be related to perceived powerless, lack of knowledge, increased moral sensitivity, or even lack of full understanding of a particular situation. It could also represent a lack of "moral courage" (5).

In 2006, Nathaniel extended the definition, highlighting the consequences of not acting according with ones' moral judgment and be participating in perceived moral wrongdoing (6). The word *perceived* is very crucial, since we may feel strongly that an action is unethical while a colleague may feel just as strongly the opposite. It is well known that MoD in pediatric intensive care (PICU) can be linked to aggressive treatment, witnessing repeated suffering, futile care, and high levels of chronic disability post discharge and may be aggravated by work environment issues such as power imbalances, improper communication, decision-making conflicts, unrealistic expectations, lack of resources or personnel, and a high index of medical errors (2, 7) Corley and colleagues have developed a scale (MDS), containing 20 clinical situations to assess the frequency to which MoD occurs, as well as the intensity of the feeling (8) This scale, now on its second version, has been utilized in several studies (4, 5), including some in the PICU environment (9). As MoD has been more thoroughly investigated, discussion about the topic has become more prominent in the bioethics literature, with several journal issues being fully dedicated to the theme (10, 11).

WHY DOES MORAL DISTRESS OCCUR IN INTENSIVE CARE UNITS?

In this high-tension, rapidly changing environment, team work is paramount – and it is the way we operate (12). Indeed, the best clinical outcomes in critical care are correlated with a "team" approach

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(13, 14). Intrateam discordance, however, has been identified as a significant factor related to MoD among all health-care disciplines (15). Team dynamics, such as power imbalances (e.g., the lack of inclusion of the bedside nurse in overall decision-making), silencing (e.g., pressure to refrain from raising ethical concerns or voicing doubt about desired outcomes), "professional tribalism" (16), lack of trust in existing systems for ethical dialogue and patient management (e.g., worry that the "ethics people" are there to protect the organization, not patients or staff), not only affect individual PICU team member's behaviors but also can heighten MoD. Poor team communications and lack of provider continuity have also been found as reasons for MoD among the PICU team (17, 18).

In our narrative inquiry study of the MoD of PICU teams, we have found that PICU staff participants identified lack of organizational support as an important source for MoD in situations of interdisciplinary conflict (19, 20). While research indicates that genuine dialog among the team members regarding ethically difficult situations is much desired (18, 21), the sheer number of personnel necessary to provide 24-h care for a PICU patient makes such dialog a logistical challenge (13). How can it be ensured that all staff involved in a particular patient's care are included in key discussions or even kept informed, in a timely way, of the ethical concerns being raised?

Finding answers to such logistical challenges is a worthwhile endeavor. The consequences of MoD are significant for any intensive care unit, at the personal, the team, and the institutional level. Conflicting views related to life-sustaining treatment deeply impact staff members. Physicians, for instance, can become detached, and their future medical decisions compromised by such experiences (15). An experience of MoD can haunt some individuals for years, in what has been called moral residue (22). In fact, it has been found that MoD can be a reason for health-care staff to quit their position or even their practice entirely (4).

There is some evidence that the intensity of MoD can vary according to two factors: personal moral sensitivity and the moral climate in the organization (23). MoD may be an expression of sensitivity to the moral aspects of practice, an appreciation of vulnerability of patients, a simple reaffirmation of one's values expressed in codes of ethics, or perhaps an acceptance of accountability and moral responsibility (15). Such recognition allows greater openness about the experience and does much to prevent a staff member being seen as simply unable to cope in the technologically driven, fast-paced intensive care environment.

WHY IS MORAL DISTRESS IN VOGUE NOW?

Lantos suggests that, in many areas of medicine today, there is a lack of consensus as what should be the best treatment for particular patients (24). As Morparia and colleagues noted, this lack of consensus continues to feed the controversy. Physician, in almost all cases, are equally divided in their choices (25). Parents have become – properly so – increasingly important in the determination of treatment choices for their children; this results at times in clashing beliefs and values between parents and health-care systems (26). In our study, participants' stories suggest that professionals can be seriously distressed by taking part in treatments and/or care that they believe to be wrong for a particular patient or family (19, 20), especially when dealing with end-of-life decisions – a finding reported by others as well (27). In a recent study within an adult ICU, Dodek and colleagues found that MoD ultimately stems from three problems: uncertainty about who is in charge, cost-cutting schemes that affect patient care, and controversies about end-of-life (4, 28). An excellent review of MoD in neonatal and pediatric ICUs, by Sauerland and colleagues, concluded that situations causing the most intense distress were related to inadequate nurse staffing and perceived incompetent coworkers. The most frequently occurring distressing items were futile care and unsafe staffing (9).

Moral distress, however, becomes magnified when one feels that it is unsafe to voice one's concern. A culture of silence can prevail to the extent that professionals know that raising any ethical concern will too easily label them as a troublemaker or as someone who is unable to "take the pressure." The lack of authentic debriefing and/or ethical dialog that occurs within such a culture appears to be a major contributor to moral distress (15).

HOW CAN WE SURVIVE IN THE ICU?

Moral distress, like burnout, is a reality of our times. We have to find ways to meaningfully address it. Not to do so can mean that we will lose highly ethical physicians who find no recourse but to leave the job they love, forfeiting years of training and personal sacrifice (28). To prevent MoD, a culture of frank dialogue and good team communication is fundamental. In the PICU, finding the time and space for these to occur is an ongoing challenge.

HOW CAN WE ADDRESS MORAL DISTRESS IN THE PICU?

Based on the current research and personal experience, the following are some practical ways that can help physicians and their teams to prevent or to address MoD:

1. *Recognize* that MoD can be an alarm signal raised by a conscientious person encountering an ethical problem and worried that something ethically wrong is going to happen (29).
2. *Give voice to the silence*: whenever possible, foster open and authentic discussion of ethical concerns from each person's perspective, including health-care professionals, trainees, parents, families, and patients. All practitioners on the team, regardless of discipline or "professional ranking," should be able to safely raise their concerns of conscience (30). A culture of ethical questioning should be endorsed by institutions, similar to the openness described in the airline industry for safety concerns (31).
3. *Reach for a "rapprochement"*: we need to find ways to support moving to reciprocal understandings among those involved in patient care, as proposed by Carnevale (32). Respect, trust, and honesty will be required for common ground to be found in difficult situations.

4. *Enhance effective communication among team members*. In the fast-paced PICU environment, "real time" team sharing of information regarding treatment options and decisions made between physicians and families is crucial (30, 33).
5. *Seek further ethics education*: ongoing education in health ethics is one way to evolve a shared language by which the team may address ethical concerns; it may allow a deeper understanding of what is at stake (34).
6. *Promote "venting/debriefing sessions"*: after difficult cases, such sessions allow for open conversations and analysis. These sessions, to be successful, need to be characterized by authenticity, compassion, regrouping, and validation (30). Such encounters are crucial for the well-being of the unit and the practitioners involved and should be supported (i.e., finances, resources, and training) by the institutions (15, 35).

At the personal, individual level, a general mindset that encompasses the following may be helpful:

1) *Nourish "moral courage"*: an ethical health-care professional will always need moral courage, i.e., be prepared to face tough decisions and confront the uncertainties associated with the resolve to *do the right thing* despite the consequences faced. This need for moral courage is especially true when the perceived constraints are within ourselves or when we face opposition within our own ranks. The courageous person accepts and assumes moral responsibility for the perceived consequences of his or her action; a physician may master fear without necessarily eliminating it (36).
2) *Seek peer support*: this type of sharing, with someone that can understand one's struggles, has a good listening ear and acknowledges and validates what one is experiencing seems essential for survival in the profession (15).
3) *Take time off*: having resting periods, time offs, vacation, and long weekend getaways: these are necessary for one's well-being. Physical activity, exercise, enjoying nature, and managing stress through mindfulness are strategies shown to increase the capacity to take new challenges with stride (1).
4) *Find another passion*: having another interest outside work, even one connected with the field, such as volunteering on medical missions, has been very rewarding for me. Having a favorite sport, a pet, or pursuit (e.g., mountain biking, skiing, gardening, and traveling) have been cited by many PICU colleagues as their way to recharge and continue on the job. Cultivating a spiritual life, within or outside an organized religion, has been found to be important to sustain one's motivation and engagement. To focus on what really matters in the work I do – the children and their families – certainly helps me keep going.

There is much that can be done to make the PICU a more "morally habitable" place. Given the current levels of reported MoD, health administrators need to attend to this important workplace factor and ensure the support necessary for staff to address it. As practitioners, we ought to develop insight into our feelings and reactions, contribute to an open environment where team work is a healthy practice, and adopt a lifestyle that recharges us for the next difficult case.

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REFERENCES

1. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet* (2009) 374:1714–21. doi:10.1016/S0140-6736(09)61424-0
2. Shanafelt TD. Enhancing meaning in work: a prescription for preventing physician burnout and promoting patient-centered care. *JAMA* (2009) 302:1338–40. doi:10.1001/jama.2009.1385
3. Jameton A. *Nursing Practice: The Ethical Issues*. Englewood Cliffs, NJ: Prentice Hall Inc (1984).
4. Dodek PM, Wong H, Norena M, Ayas N, Reynolds SC, Keenan SP, et al. Moral distress in intensive care unit professionals is associated with profession, age, and years of experience. *J Crit Care* (2016) 31:178–82. doi:10.1016/j.jcrc.2015.10.011
5. Hamric AB, Blackhall LJ. Nurse-physician perspectives on the care of dying patients in intensive care units: collaboration, moral distress, and ethical climate. *Crit Care Med* (2007) 35:422–9. doi:10.1097/01.CCM.0000254722.50608.2D
6. Nathaniel A. Moral reckoning in nursing. *West J Nurs Res* (2006) 28:419–38. doi:10.1177/0193945905284727
7. Garros D, Austin W, Carnevale FA. Moral distress in pediatric intensive care. *JAMA Pediatr* (2015) 169:885–6. doi:10.1001/jamapediatrics.2015.1663
8. Corley MC, Elswick RK, Gorman M, Clor T. Development and evaluation of a moral distress scale. *J Adv Nurs* (2001) 33:250–6. doi:10.1111/j.1365-2648.2001.01658.x
9. Sauerland J, Marotta K, Peinemann MA, Berndt A, Robichaux C. Assessing and addressing moral distress and ethical climate part II. *Dimens Crit Care Nurs* (2014) 33:234–45. doi:10.1097/DCC.0000000000000050
10. Pauly BM, Varcoe C, Storch J. Framing the issues: moral distress in health care. *HEC Forum* (2012) 24:1–11. doi:10.1007/s10730-012-9176-y
11. Rushton CH, Boss R. Symposium: the many faces of moral distress among clinicians. *Narrat Inq Bioeth* (2013) 3(2):89–124. doi:10.1353/nib.2013.0039
12. Austin W, Kelecevic J, Goble E, Mekechuk J. An overview of moral distress and the paediatric intensive care team. *Nurs Ethics* (2009) 16:57–68. doi:10.1177/0969733008097990
13. Durbin CJ. Team model: advocating for the optimal method of care delivery in the intensive care unit. Model and workforce. *Crit Care Med* (2006) 34(3 Suppl):S12–7. doi:10.1097/01.CCM.0000199985.72497.D1
14. Kim MM, Barnato AE, Angus DC, Fleisher LF, Kahn JM. The effect of multidisciplinary care teams on intensive care unit mortality. *Arch Intern Med* (2010) 170:369–76. doi:10.1001/archinternmed.2009.521
15. Bruce CR, Miller SM, Zimmerman JL. A qualitative study exploring moral distress in the ICU team: the importance of unit functionality and intrateam dynamics. *Crit Care Med* (2015) 43:823–31. doi:10.1097/CCM.0000000000000822
16. Larkin C, Callaghan P. Professionals' perceptions of interprofessional working in community mental health teams. *J Interprof Care* (2005) 19:338–46. doi:10.1080/13561820500165282
17. Trotochaud K, Coleman J, Krawiecki N, McCracken C. Moral distress in pediatric healthcare providers. *J Pediatr Nurs* (2015) 30:908–14. doi:10.1016/j.pedn.2015.03.001
18. Wlody GS. Nursing management and organizational ethics in the intensive care unit. *Crit Care Med* (2007) 35(2 Suppl):S29–35. doi:10.1097/01.CCM.0000252910.70311.66

19. Wall S, Austin WJ, Garros D. Organizational influences on health professionals' experiences of moral distress in PICUs. *HEC Forum* (2016) 28:53–67. doi:10.1007/s10730-015-9266-8
20. Austin WJ, Garros D, Carnevale F, Goble E, Frank AW, Anderson T. *The Experience and Resolution of Moral Distress in PICU Teams: A Canadian Experience*. (2015). Available from: http://picumoraldistress.ualberta.ca (accessed August 18, 2016).
21. Oberle K, Hughes D. Doctors' and nurses' perceptions of ethical problems in end-of-life decisions. *J Adv Nurs* (2001) 33:707–15. doi:10.1046/j.1365-2648.2001.01710.x
22. Epstein EG, Hamric AB. Moral distress, moral residue, and the crescendo effect. *J Clin Ethics* (2009) 20:330–42.
23. Lützén K, Blom T, Ewalds-Kvist B, Winch S. Moral stress, moral climate and moral sensitivity among psychiatric professionals. *Nurs Ethics* (2010) 17:213–24. doi:10.1177/0969733009351951
24. Lantos JD. Moral distress and ethical confrontation: problem or progress? *J Perinatol* (2007) 27:201–2. doi:10.1038/sj.jp.7211679
25. Morparia K, Dickerman M, Hoehn K. Futility: unilateral decision making is not the default for pediatric intensivists. *Pediatr Crit Care Med* (2012) 13:e311–5. doi:10.1097/PCC.0b013e31824ea12c
26. Farlow B. Choosing the road less traveled. *Curr Probl Pediatr Adolesc Health Care* (2011) 41:115–6. doi:10.1016/j.cppeds.2010.10.014
27. Allen R, Judkins-Cohn T, deVelasco R, Forges E, Lee R, Clark L, et al. Moral distress among healthcare professionals at a health system. *JONAS Healthc Law Ethics Regul* (2013) 15:111–8. doi:10.1097/NHL.0b013e3182a1bf33
28. Crippen D. Moral distress in medicine: powerlessness by any other name. *J Crit Care* (2016) 31:271–2. doi:10.1016/j.jcrc.2015.11.005
29. Bosslet GT, Pope TM, Rubenfeld GD, Lo B, Truog RD, Rushton CH, et al. An official ATS/AACN/ACCP/ESICM/SCCM policy statement: responding to requests for potentially inappropriate treatments in intensive care units. *Am J Respir Crit Care Med* (2015) 191:1318–30. doi:10.1164/rccm.201505-0924ST
30. Brandon D, Ryan D, Sloane R, Docherty D. Impact of a pediatric quality of life program on providers' moral distress. *MCN Am J Matern Child Nurs* (2014) 39(3):187–97. doi:10.1097/NMC.0000000000000025
31. Valentin A. The importance of risk reduction in critically ill patients. *Curr Opin Crit Care* (2010) 16:482–6. doi:10.1097/MCC.0b013e32833cb861
32. Carnevale FA. Ethical care of the critically ill child: a conception of a "thick" bioethics. *Nurs Ethics* (2005) 12:239–52. doi:10.1191/0969733005ne786oa
33. Lilly C, Sonna L, Haley K, Massaro A. Intensive communication: four-year follow-up from a clinical practice study. *Crit Care Med* (2003) 31:S394–9. doi:10.1097/01.CCM.0000065279.77449.B4
34. Bell J, Breslin JM. Healthcare provider moral distress as a leadership challenge. *JONAS Healthc Law Ethics Regul* (2008) 10:94–7. doi:10.1097/NHL.0b013e31818ede46
35. Rushton CH. Defining and addressing moral distress: tools for critical care nursing leaders. *AACN Adv Crit Care* (2006) 17:161–8. doi:10.1097/00044067-200604000-00011
36. Shelp EE. Courage and tragedy and clinical medicine. *J Med Philos* (1983) 8:417–42. doi:10.1093/jmp/8.4.417

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Unbalanced but Satisfied?

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Keywords: burnout, career, satisfaction, physician, balance

During my fellowship training in critical care, my then 4-year-old daughter drew my picture in shabby scrubs with two dark circles around my eyes, and named it "mommy panda" depicting my sleep deprived and exhausted existence. At that time, I was spending about two and a half hours commuting, braving Atlanta traffic, while my husband pursued his PhD training in New York. My situation as an anchor parent of a young child with no family around and the demands of an emotionally and physically challenging fellowship training generated lots of sympathy and concerns from well-wishers and colleagues. They saw my life as unbalanced, at risk of burnout, and it is true that they had some reasons to worry since the odds were not in my favor. Physicians in general and particularly those exposed to unremitting high level of stress in specialties such as critical care are at high risk of burnout (1), a condition resulting from cumulative stress at work characterized by emotional exhaustion, depersonalization, and lack of personal accomplishment (2, 3). Emotional exhaustion is a key component in physician burnout (2), and the reported incidence in the US ranges from 25 to 60% (4, 5).

To avoid becoming yet another victim, I tried to learn what we already know about the risk and protective factors associated with physician burnout. Available evidence describes a number of work and personal factors often associated with physician burnout. Work characteristics such as heavy workload, poor work organization, conflicts with coworkers, patients and their families, and perceived lack of control of work hours and schedule, specialty choice and practice settings are reported as risk factors in both sexes (6–9). Parenting responsibilities, career and work schedule of a significant other, and the strength of social support are some of the factors identified in studies that have examined life style factors (10). As I understood, rather than individual factors, the interplay between these factors forming tension between personal and professional responsibilities, labeled as "work home interference" appears to be at the heart of burnout (11).

During my training and the first few years of practice, I often found solace in the belief that "things get better with time. Evidence suggests that this may be true as younger physicians have twice the incidence of burn out as older colleagues, and onset may be as early as during training (4). Younger physicians, those like I with <10 years of practice history have the lower career satisfaction and higher rates of both depersonalization and home-work conflicts even though they work fewer hours (12). It seems that if you survive the midcareer, when physicians of both sexes and most specialties are least satisfied and most burned out; you have better odds of being satisfied with work–life balance. However, I do wonder these findings may be due to self-selection or generational difference in attitudes to work and life.

While physician burnout is often a natural and anticipated response to cumulative stress in medicine as a system, I have often wondered, as a woman am I at greater risk of burnout than my male colleagues? How strong is the role of gender in the origin, perceptions and the ways one survive a stressful medical career? These are critically important issues for us to explore as more than half of the graduating physicians in the US are women, though they make only 30% of practicing physicians and 12% of professors in academic medicine (13). One-third of women pediatricians work part time for a better balance between professional life and family life (14). So, when I found studies describing female gender as an independent risk factor for physician burnout (7, 15), I was not surprised. I assumed that this is because women in general have role overload, that they often have a disproportionate share of domestic and or parenting responsibilities and therefore

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have more work–life conflict. I would later find out that this is not so clear cut as I thought. The nature of the gender-burnout relationship across all occupations remains unclear as only a handful of authors have investigated this relationship directly, and empirical results are mixed. Parental and marital status, often blamed as the major reasons for role overload, did not predict burnout, and some studies have even shown that married women physicians with children have less burnout and are more satisfied compared to their unmarried colleagues (16–18). So the positive association or rather the lack of negative association between marriage and parental status on well-being suggests that work–family conflict may not in and of themselves be the major source of excess burnout among women physicians. While suggesting physicians to get married and have children are not pragmatic solutions to combat distress, nurturing and protecting our personal and professional relationships are keys to avoiding burnout (11).

Another theme that has emerged from studies is the actual or perceived lack of control over work schedule as a significant factor associated with burnout (9, 19). Physicians who felt in control over work hours and schedule have significantly lower burnout even when they worked longer hours (15). Women physicians of all ages perceived significantly less control over their schedule across specialties and practice settings and felt more time pressure (9, 18). This may be partly due to gender-related differences in working style and expectations such as more time and effort to communicate with patients and emphasis on addressing psychosocial and health maintenance issues (18).

Fortunately, I have never felt dissatisfied with my career choice and have always viewed this as an insurance against burnout. Yet, could it be possible to feel genuinely satisfied with your career, but feel exhausted and struggle with symptoms of burnout? Interestingly, career satisfaction is a complex issue and the relationship between career satisfaction and burnout appears bidirectional. Burned out physicians tend to be less satisfied with their career, and physicians who are satisfied were less likely to report high levels of burnout (20). Although studies describe majority of physicians are satisfied with their careers, career satisfaction varies by specialty, income, and age (21, 22). Surprisingly, women are more likely to be satisfied with their career choice compared to men (9). Whether it is due to the different work values and work expectations for women or the phenomenon of paradox of contented female worker, i.e., objectively have poor work quality but report equal or more job satisfaction is not clear.

This also alludes to an inherent problem in interpreting evidence on gender differences in physician burnout and career satisfaction. Women are more open to expressing symptoms of emotional and physical fatigue while men are more likely to shut off and withdraw under stress and depersonalize the experience (23). Thus, it is possible that relationship between gender and burnout may have been exaggerated well beyond the actual size. Women occasionally pay a high price for this conventional assumption while being passed over for challenging assignments and promotions while men suffer from unrecognized burnout. It seems that the origins of burnout and career satisfaction are mostly entrenched in the environment and care delivery system rather than in the gender or personal characteristics of a few susceptible people (24).

Emerging evidence on physician work–life balance challenge some of the conventional beliefs on work–life balance and burnout. Specialties with lowest burnout has shown to score high in work–life balance, yet highest burnout were not necessarily among those least satisfied with work–life balance (24). It has been found that work–life balance is not a predictor of career satisfaction after adjusting for common predictors such as work hours, marital status, children, and control over work (19). In contrast, measures of burnout like emotional resilience and personal accomplishment are strongly associated with career satisfaction, and this relationship is independent of work and demographic factors (19). Hence issues of work–life balance are much less predictive of career satisfaction and physicians even with some amount of imbalanced work–life configuration may remain deeply satisfied with careers.

Nevertheless, I have to admit that the most common sensical advice that I received to prevent burnout is to aim for a work–life balance. As I took this to heart and struggled to achieve a new balance, I became painfully aware of the unevenness in my life. My preoccupation with the need for a work–life balance stressed me, whereas the guilt of missing the mark drove me further into despair, until I started to question my struggle. I realized that in my struggle to achieve a work–life balance, I have been trying to redefine my life by drawing artificial lines between my work, my calling and who I am. I found much help and comfort in my Eastern spiritual roots, to accept my life as it is with a certain level of chaos and unpredictability.

I am blessed with the unique opportunity to make a difference in the lives of children and their families during their most stressful and vulnerable times. These experiences teach me to live consciously in the moment and cherish and enjoy precious moments with my family. In turn, I gain my energy and resilience to continue my work from the love and support of my family. So as I see it, my work and family complement and not compete with each other. I feel fine with reasonable imbalance in my life as I achieve fulfillment from my work and support from my family.

My daughter is now 10 years old and I probed her to see how she perceives balance in my life. She did not quite understood the meaning of balance and asked "*does that mean you are happy leaving for work as well as happy coming home*?" I said "*Yes, something like that*". Her response was "*well, most days*." I was satisfied with that answer and on any day will choose being happy over chasing an ever elusive balance.

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AS is the sole author and wrote the first draft.

REFERENCES

1. Fields AI, Cuerdon TT, Brasseux CO, Getson PR, Thompson AE, Orlowski JP, et al. Physician burnout in pediatric critical care medicine. *Crit Care Med* (1995) **23**(8):1425–9. doi:10.1097/00003246-199508000-00018
2. Freudenberger Herbert J. Staff burn-out. *J Soc Issues* (1974) **30**(1):159–65. doi:10.1111/j.1540-4560.1974.tb00706.x
3. Mealer M, Burnham EL, Goode CJ, Rothbaum B, Moss M. The prevalence and impact of post traumatic stress disorder and burnout syndrome in nurses. *Depress Anxiety* (2009) **26**(12):1118–26. doi:10.1002/da.20631
4. Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM, Leaning MS, et al. Burnout and psychiatric disorder among cancer clinicians. *Br J Cancer* (1995) **71**(6):1263. doi:10.1038/bjc.1995.244
5. Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. *Curr Opin Crit Care* (2007) **13**(5):482–8. doi:10.1097/MCC.0b013e3282efd28a
6. Embriaco N, Azoulay E, Barrau K, Kentish N, Pochard F, Loundou A, et al. High level of burnout in intensivists: prevalence and associated factors. *Am J Respir Crit Care Med* (2007) **175**(7):686–92. doi:10.1164/ajrccm.175.11.1209a
7. Parshuram CS, Dhanani S, Kirsh JA, Cox PN. Fellowship training, workload, fatigue and physical stress: a prospective observational study. *Can Med Assoc J* (2004) **170**(6):965–70. doi:10.1503/cmaj.1030442
8. Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* (2002) **136**(5):358–67. doi:10.7326/0003-4819-136-5-200203050-00008
9. Frank E, McMurray JE, Linzer M, Elon L. Career satisfaction of US women physicians: results from the women physicians' health study. *Arch Intern Med* (1999) **159**(13):1417–26. doi:10.1001/archinte.159.13.1417
10. Geurts S, Wilmar S, Jan De J. Burnout and intention to leave among mental health-care professionals: a social psychological approach. *J Soc Clin Psychol* (1998) **17**(3):3. doi:10.1521/jscp.1998.17.3.341
11. Shanafelt TD, Sloan JA, Habermann TM. The well-being of physicians. *Am J Med* (2003) **114**(6):513–9. doi:10.1016/S0002-9343(03)00117-7
12. Dyrbye LN, Varkey P, Boone SL, Satele DV, Sloan JA, Shanafelt TD. Physician satisfaction and burnout at different career stages. In: *Mayo Clinic Proceedings*; 2013 Dec 31; (Vol. 88), Elsevier (2013). p. 1358–67. Available from: http://www.mayoclinicproceedings.org/content/aims
13. Lauren J, Leadley J, Coakley E, Sloane RA. *Women in US Academic Medicine and Science: Statistics and Benchmarking Report 2011-2012*. Washington, DC: Association of American Medical Colleges (2012). p. 1–59.
14. Cull WL, O'Connor KG, Olson LM. Part-time work among pediatricians expands. *Pediatrics* (2010) **125**(1):152–7. doi:10.1542/peds.2009-0767
15. Roth M, Morrone K, Moody K, Kim M, Wang D, Moadel A, et al. Career burnout among pediatric oncologists. *Pediatr Blood Cancer* (2011) **57**(7):1168–73. doi:10.1002/pbc.23121
16. Koran LM, Litt IF. House staff well-being. *West J Med* (1988) **148**(1):97.
17. Warde CM, Kushan M, Walter A, Lillian G. Marital and parental satisfaction of married physicians with children. *J Gen Intern Med* (1999) **14**(3):157–65. doi:10.1046/j.1525-1497.1999.00307.x
18. McMurray JE, Linzer M, Konrad TR, Douglas J, Shugerman R, Nelson K. The work lives of women physicians. *J Gen Intern Med* (2000) **15**(6):372–80. doi:10.1046/j.1525-1497.2000.9908009.x
19. Keeton K, Fenner DE, Johnson TR, Hayward RA. Predictors of physician career satisfaction, work–life balance, and burnout. *Obstet Gynecol* (2007) **109**(4):949–55. doi:10.1097/01.AOG.0000258299.45979.37
20. Shanafelt TD, Balch CM, Bechamps GJ, Russell T, Dyrbye L, Satele D, et al. Burnout and career satisfaction among American surgeons. *Ann Surg* (2009) **250**(3):463–71. doi:10.1097/SLA.0b013e3181ac4dfd
21. Leigh JP, Kravitz RL, Schembri M, Samuels SJ, Mobley S. Physician career satisfaction across specialties. *Arch Intern Med* (2002) **162**(14):1577–84. doi:10.1001/archinte.162.14.1577
22. Mechanic D. Physician discontent: challenges and opportunities. *JAMA* (2003) **290**(7):941–6. doi:10.1001/jama.290.7.941
23. Purvanova RK, John PM. Gender differences in burnout: a meta-analysis. *J Vocat Behav* (2010) **77**(2):168–85. doi:10.1016/j.jvb.2010.04.006
24. Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med* (2012) **172**(18):1377–85. doi:10.1001/archinternmed.2012.3199

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Work and Life Balance "If We Are Not Happy Both in Work and out of Work, We Cannot Provide Happiness to Others"

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Keywords: work–life balance, pediatric critical care medicine, happiness, burnout, professional, other industries

"We are physicians, but first and foremost, human beings."

Like most of my colleagues, I spent many years studying to pass medical school, residency, and fellowship. However, during all that time I never had an official lecture on work–life balance. Unofficially, too, it seemed like a taboo to talk about our personal life during our early training. We were told, "always patient care comes first," and "we had a hard residency as well, and this is training." "Resident" in the *Cambridge* dictionary means "the person who lives in a place," and literally, we as residents were covering the hospital 24/7 in my home country of Japan. The society took it for granted that we would sacrifice our personal lives for our professional lives. How many times did we miss our kids' concerts, or parents' day in the school? Now, although trainees in the U.S. are protected with duty-hour rules, we as attending physicians still sometimes spend 36 h at a time in the hospital.

The topic of work–life balance is one I learned about from personal conversations after rounds or work instead of official lectures. My supervisors sometimes encouraged work–life balance even if they did not call it that. For example, this is what my boss told me during my ICU training. "We are working in a very stressful environment already. Please decrease the stress outside of the hospital as much as possible." He did several things to accomplish this himself. When he worked in the hospital in NYC, he lived in a condo near the hospital to avoid traffic jams. Even after he moved to my training hospital, he lived in a house just a 5-min drive from the hospital. Another example was advice I received from my senior fellow when I started my pediatric critical care fellowship. At that time, I took a nap on a chair in the physician work area, and rounded bedside almost every hour, even when bedside nurses told me that everything was fine. I worried that I would oversleep if I lay down in the bed in the call room. My senior fellow advised me not to nap and round every hour and asked the nurses to call me if a patient's parameter should change. His concern was that I may soon end up with burnout. That was the first time I thought of burnout myself.

However, now we see more and more articles discussing this issue. I conducted a literature search using Pubmed with the key words "physician work–life balance." The search result showed 220 articles, but there were almost no articles before the year 2000. This issue is now seen not only as a problem in the U.S. but also in other countries. In the current literature, this issue is regarded mostly as a female physicians' problem of balancing work and family/children issues. A current survey in the U.S. showed that more than half of pediatric critical care fellows are female and about 80% of female pediatric intensivists work full time. Even in Generation X, female physicians spend more time than male physicians parenting or involved in a domestic activity (1). I have to admit that more female physicians have this problem; however, male physicians also need to consider this issue more seriously to have a happy life with family members or significant others.

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JOB-ASSOCIATED AND HOME-ASSOCIATED STRESS

As pediatric critical care physicians, we face many significant stressors at work. We are general practitioners in the PICU and need to learn updated medical knowledge about a wide variety of conditions. The patients' family members are also under stress in the PICU, and we deal with this issue as well. We sometimes have to handle conflicting plans between other services to make a consensus for the best benefit of the patient. Most importantly, the patients we see in the PICU are in critically ill condition, and we need to treat them in a timely manner. A delay in treatment or unexpected complications may end up with morbidity and mortality. And we fight the diseases with our patients. We spend many hours at the bedside working to save the child, but even with all our efforts, we are not always successful. In these situations, I am left feeling helpless and drained of energy. In some cases, I regret what I could have done. I cannot increase the mood elevator even when I see the poster of the mood elevator inside the hospital.

However, even in the face of losing a patient, we have to paralyze our emotions, or at least mask them, because we experience so many patient deaths and tragedy. We are forced to do so as a physician. Other patients need our attention, and no one can wait for us. We need to function as usual, at least until we sign out to the next shift. That is our role and what we are supposed to do. But we need time to recover! We need to be able to grieve, just as our patient's family members do. We may need psychological bereavement, or find the way to cope with these situations by ourselves such as a workout in the gym, spending time with significant others, kids, pets, etc. Sometimes, I will get energy from my family members. Innocent smiles from my son or spending time on a hobby like cooking, fishing, or wine tasting help accelerate my recovery process.

Unfortunately, the opposite situation may also apply. If you are experiencing problems in your personal life, such as a breakup with your significant other, or death of a family member or friend, your mood is already low, which makes it harder to recover from the morbidity and mortality of the PICU. As professionals, we are expected to act in the usual professional manner. But we cannot separate work and personal life completely because we are human beings with emotions.

BURNOUT

Burnout is a chronic psychological condition associated with emotional exhaustion, depersonalization, and feelings of inefficacy. Results demonstrate close relationships between increased work stress and burnout as well as diminished quality of care. High work stress environments in pediatric care influence the mental health of pediatricians as well as the quality of patient care (2). Garcia et al. demonstrated that the prevalence of burnout in pediatric intensivists is as high as 71% compared to 29% in general pediatricians (3). In a recent survey of pediatric critical care subspecialists in the U.S. conducted by the American Academy of Pediatrics, 18% of the responders planned to leave pediatric critical care medicine practice (4). Even though this is a small percentage of our population, we cannot ignore the contributing factors of long working hours (13.1%) and the stress associated with the field (25.7%). I am fortunate to have several experienced pediatric intensivists in our division. Their experiences and opinions are priceless. The loss of one pediatric intensivist by burnout would be a great loss to our treatment team. Similarly, there would be great costs to society if there were not enough pediatric critical care subspecialists in the field.

In an extreme case, burnout could cause depression and "Karoshi," death due to overwork (5). I lost one of my classmates in medical school from suicide during the first 6 months of residency training. I went out with him 1 month before the incident as usual, and we talked about jobs and personal issues. However, I could not notice any changes in his physical and emotional condition, and I regret that I did not pay closer attention.

The quality of leadership by physician supervisors in the organization can reduce burnout and increase job satisfaction (6). We need to build up a sustainable system to avoid burnout through the leadership of a society, or an organization. This may include a mental and physical health screening on a regular basis and a targeted intervention such as psychological support as needed in the job place.

OTHER INDUSTRIES

We have learned many things from other industries that have improved our practice including safety and quality improvement. We learned from the air flight industry to decrease medical errors with the slogan "*to err is human*" (7). The Toyota Kaizen method was applied to our industry for quality improvement, such as a decreased transfer time or time for discharge or admission (8). Now is the time for us to learn work–life balance from other industries as well. Work–life balance is not only the physician's problem but it is also a big challenge in other industries. We can read articles about this problem in Forbes, or Harvard Business Review. Forbes released a list of the top 25 companies in terms of work–life balance in 2014. Google was listed as one of the top companies to succeed at providing work–life balance for their employees. Google even applied a scientific approach to understanding this issue (9). They discovered that their employees could be separated into two groups dependent on their work–life approach: "segmentors" and "integrators." "Segmentors" are people who are able to draw a psychological boundary successfully between work and life, and "integrators" are not able to do so. Only 31% of Google employees were "segmentors." More than half of the "integrators" wanted to get better at segmenting. This survey shows how difficult it is for many people to separate work completely from the rest of their lives. Google realized how important it is to create an environment in which the employee can focus on work by "removing barriers so Googlers can focus on the things they love, both inside and outside of work" (10). The company knows the importance of attracting top talent in a tight job market, and this will lead to Google's profitable success. This scientific approach should be also applied to improve the working environment in health care industries.

As part of physician groups locally, nationally, and globally, we need to establish a system to improve our working environment. Each institutional effort has a limitation, so medical societies

such as AAP or the Society of Critical Care Medicine should take a leadership role with this issue. Otherwise our society will not be able to hire and retain young talented people. These people may go to other attractive industries such as IT, engineering, and business, etc.

CONCLUSION

For many of us, unfortunately, it is impossible to separate work and personal life completely. Our job is giving happiness to others through medicine. If we are not happy both in work and out of work, we cannot provide happiness to others. It is our responsibility to show leadership to create a satisfying and productive working environment for our future colleagues and our patients.

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REFERENCES

1. Jolly S, Griffith KA, DeCastro R, Stewart A, Ubel P, Jagsi R. Gender differences in time spent on parenting and domestic responsibilities by high-achieving young physician-researchers. *Ann Intern Med* (2014) **160**:344–53. doi:10.7326/M13-0974
2. Weigl M, Schneider A, Hoffmann F, Angerer P. Work stress, burnout, and perceived quality of care: a cross-sectional study among hospital pediatricians. *Eur J Pediatr* (2015) **174**(9):1237–46. doi:10.1007/s00431-015-2529-1
3. Garcia TT, Garcia PC, Molon ME, Piva JP, Tasker RC, Branco RG, et al. Prevalence of burnout in pediatric intensivists: an observational comparison with general pediatricians. *Pediatr Crit Care Med* (2014) **15**:e347–53. doi:10.1097/PCC.0000000000000218
4. Radabaugh CL, Ruch-Ross HS, Riley CL, Stockwell JA, Conway EE Jr, Mink RB, et al. Practice patterns in pediatric critical care medicine: results of a workforce survey. *Pediatr Crit Care Med* (2015) **16**:e308–12. doi:10.1097/PCC.0000000000000480
5. Hiyama T, Yoshihara M. New occupational threats to Japanese physicians: karoshi (death due to overwork) and karojisatsu (suicide due to overwork). *Occup Environ Med* (2008) **65**:428–9. doi:10.1136/oem.2007.037473
6. Shanafelt TD, Gorringe G, Menaker R, Storz KA, Reeves D, Buskirk SJ, et al. Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin Proc* (2015) **90**:432–40. doi:10.1016/j.mayocp.2015.01.012
7. Kohn LT, Corrigan JM, Donaldson MS, editors. *To Err is Human: Building a Safer Health System*. Washington, DC: National Academies Press (2000).
8. Jacobson GH, McCoin NS, Lescallette R, Russ S, Slovis CM. Kaizen: a method of process improvement in the emergency department. *Acad Emerg Med* (2009) **16**:1341–9. doi:10.1111/j.1553-2712.2009.00580.x
9. Bock L. *Google's Scientific Approach to Work-Life Balance (and Much More)*. Boston, MA: Harvard Business Review (2014).
10. Dill K. *The Best Companies for Work-Life Balance*. (2014). Available from: http://www.forbes.com

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Work–Life Balance: A Different Scale for Doctors

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Keywords: work–life balance, residency, pediatric intensive care unit, workload, job satisfaction, burnout, professional

THE RESIDENT PERSPECTIVE

"Hey, do you want to hang out this weekend?"

"Ummm … let me see if I'm on call …"

This is a conversation every resident goes through almost every month of their training. Despite work hour regulations, overnight calls and weekend calls define and shape our life. Every family event, birthday, and anniversary has to be adjusted around the work schedule. Weekends are traditionally seen as family time. Not so much during residency. At the start of residency, every intern is promised that with work hour regulations now in effect (1), more time can be spent at home with family. Little do they realize that they make up for the reduced duty hours by working more weekends. Even with compensatory time, family time is unlikely to be recovered (2).

I got married just before starting my residency. At the time, I did not realize how much the residency would come in the way of my personal life. However, on my days off, I found myself catching up on lost sleep and regaining the strength to survive another day. Just like most other chronically sleep-deprived residents (3), even when I woke up, I was grumpy and irritable (4). Let us just say my wife was not amused.

Starting the second year of residency was a scary thought not just in terms of increased responsibility, but also because it posed the physical challenge of working for 24 h straight. The Accreditation Council for Graduate Medical Education (ACGME) encourages residents to take a "strategic nap" during these shifts, which made me think it should not be as bad as I thought. And it was not. A 60–90-min nap seemed sufficient to keep me going for 24 h. However, during my pediatric intensive care unit (PICU) rotation, the same strategy did not work. "Strategic naps" were now only 10 min cat naps on a chair. Like with any ICU rotation, there were highs and lows. Although it was a roller-coaster ride, I thoroughly enjoyed the rotation. The challenge of taking care of the sickest children in the hospital and the immediate gratification of curing someone kept me going.

While I was engrossed in the sustained chaos in the ICU, I was disconnected from the outside world. For those 4 weeks, I was solely driven by my passion to take care of acutely sick patients. No matter how physically or mentally tired I might have been, those patients were more precious than my sleep. I soon realized that this chronic lack of sleep and the mental and emotional fatigue made me neglect my family and affected my mood. Any other concerns that my friends or family had seemed less important to me and did not warrant immediate attention compared to acutely ill children holding on to their lives. This made me question my priorities. Is my triage of responsibilities right? Is my

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work schedule affecting my attitude toward non-urgent concerns outside the hospital? And most importantly, do I want to do this for the rest of my life?

During residency, the academic *curriculum* is very well outlined. However, not as much time is spent teaching residents the importance of striking a balance, or at least trying, between their stressful and long work hours and their personal life. Most Graduate Medical Education (GME) offices do offer services to residents that may include sports facilities and corporate discounts, that can be helpful. Many more stress management strategies can be learnt from experienced physicians that may be formally incorporated into medical training (5). Sometimes, the vague transition from work to home can be eased by conscious physical detachment from work. Google ran a program in its Dublin office called "Dublin Goes Dark" where employees were not allowed to take their electronic devices home and had to leave them at work. The forced detachment from work led to more stress-free evenings (6). Many residents struggle not to use home access to electronic medical records to check on how some patients are doing since their last shift or check the clinical census before they start the next shift. Formal training on making sure that we do not remain preoccupied about a child's suffering once we go back home is vital.

I have learned this the hard way. After a couple of weeks in the PICU, I wanted to emotionally blind myself from the hospital once I was done with my shift and going back home. This may sound inhumane and insensitive. However, I could not spend the few hours or a rare weekend that I had off, obsessed with something I could do nothing about. No matter how much I wanted to, I could not be in the hospital 24/7. This was my time. And I had to claim it.

It worked! Time spent outside of work started becoming more satisfying and enjoyable. I felt more refreshed and less emotionally exhausted. There was still one major problem: time. With more than half of the time in a week spent working, I felt that I was still neglecting family duties and furthermore neglecting myself. Time at home was spent studying, preparing for presentations, and working on research projects. Essentially, still work. I used to paint and go to the gym regularly. Not anymore. I complained to myself and my family complained to me. I could not prolong my week and get an extra day in the week and I felt helpless.

I pondered over this dilemma and realized that the problem lay within my own expectations. Becoming a doctor came with a price and I should be ready to pay it. Family life of a doctor is a different "normal." The sooner I accepted this and lowered my expectations, the sooner would I be more satisfied with the "balance" that I was trying to achieve. I started utilizing my time wisely. At work, I would squeeze reading assignments into lunch breaks and tried to work on projects while still in the hospital. At home, I had to plan weekends, holidays, and free evenings. Exercise could not be an hour long session, it could still be 15 min. Slowly, my wife started coming to terms with the limited time we could spend together. We made the most of that quality time that was otherwise not maximized. We decided to plan each weekend more than we had ever done.

From medical school to residency to fellowship and eventually full-time work, life is only going to get more demanding. I did not want to believe this, but now I do. Caring for acutely sick children is what I love to do the most. Accepting that this is going to be challenging and demanding in many ways only helps motivate me and realize that achieving work–life balance will be a constant struggle. As long as I know that my work may help a child reach his potential, I am willing to give up weekends and accept sleepless nights.

"Happiness can only exist in acceptance" – George Orwell

THE ATTENDING PHYSICIAN PERSPECTIVE

From the moment, we decide to study medicine and work as physicians, we need to realize that work will absorb a large part of our life, where long hours and weekend calls are just the tip of the iceberg. Along with the need to study and continuously update our knowledge from the current literature, as physicians, we will have many other career demands, such as Board exams, Maintenance of Certification, and GME requirements. The sooner we understand this reality and accept it, the better. Spending time worrying about how much we are working or how many calls we have to do would make our job twice as hard, we are getting stressed thinking about it and we still have to do the work. Do not get me wrong, I am not advocating we should accept any unfair work conditions or do not try to improve our quality of life, but living continuously stressed and dissatisfied will drain further our already depleted energy. This vicious cycle could lead to burn out, depression, addiction, isolation, family problems including divorce. A study found higher prevalence for burn out in physicians compared to other workers in the United States and a higher risk among primary care physicians (7). The increased burden of paperwork, electronic medical records, and the pressure to see more patients are making physicians leave clinical practice prematurely and switch to a different career path or give up completely medicine to pursue better work conditions in an entirely different field. When an experienced physician quits practice, it is very difficult and costly to replace him. Additionally, there are data predicting a physician shortage in the next 5–10 years, since the projected increase in physician number will not match the projected growth demand (8).

There is an increased focus on the millennial generation of physicians since it is believed that this group has more expectations about work hours, flexibility, benefits, and the importance of work–life balance. The millennials are described as the "wanting all" generation (9). Consequently, efforts must be taken to improve job satisfaction for the physicians, especially for those from the Millennial generation, who are going to play an increasingly central role in the Health Care work force as they replace the soon to retire the Baby Boomer doctors (10, 11).

Difficult work environment and inefficient leaders are also important contributors to job dissatisfaction besides the long working hours and patient overload. Thus, when searching for jobs, attention should be paid to a broad spectrum of work

conditions, and work satisfaction should be considered a priority, not a mere side effect. This alone will, in the long run, optimize performance and grant better work–life balance, and ultimately, maximize career achievements.

In my opinion, considering work and life as two opposite forces is like dividing ourselves into two pieces that cannot coexist. We are one and we should not isolate the physician from the person. Each of these aspects of our life contributes to who we are, to our happiness, and ultimately to our success as physicians and human beings.

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Each author wrote a part of this article. IN also edited and formatted. Both authors contributed equally and are first authors of this article.

REFERENCES

1. ACGME. *Frequently Asked Questions: ACGME Common Duty Hour Requirements* (2014). Available from: https://www.acgme.org/acgmeweb/
2. Hook JL. Working at the weekend: fathers' time with family in the United Kingdom. *J Marriage Fam* (2012) **74**(4):631–42. doi:10.1111/j.1741-3737.2012.00986.x
3. Mansukhani MP, Kolla BP, Surani S, Varon J, Ramar K. Sleep deprivation in resident physicians, work hour limitations, and related outcomes: a systematic review of the literature. *Postgrad Med* (2012) **124**(4):241–9. doi:10.3810/pgm.2012.07.2583
4. Gruber R, Cassoff J. The interplay between sleep and emotion regulation: conceptual framework empirical evidence and future directions. *Curr Psychiatry Rep* (2014) **16**(11):500. doi:10.1007/s11920-014-0500-x
5. Zwack J, Schweitzer J. If every fifth physician is affected by burnout, what about the other four? Resilience strategies of experienced physicians. *Acad Med* (2013) **88**(3):382–9. doi:10.1097/ACM.0b013e318281696b
6. Bock L. *Google's Scientific Approach to Work-Life Balance (and Much More)* (2014). Available from: https://hbr.org/2014/03/googles-scientific-approach-to-work-life-balance-and-much-more/
7. Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med* (2012) **172**(18):1377–85. doi:10.1001/archinternmed.2012.3199
8. Carrier ER, Yee T, Stark L. *Matching Supply to Demand: Addressing the U.S. Primary Care Workforce Shortage. Policy Analysis No. 7*. Washington, DC: National Institute for Health Care Reform (2011).
9. Glicksman E. *Wanting It All: A New Generation of Doctors Places Higher Value on Work-Life Balance*. Washington, DC: AAMC Reporter (2013).
10. Wetterneck TB, Linzer M, McMurray JE, Douglas J, Schwartz MD, Bigby J, et al. Worklife and satisfaction of general internists. *Arch Intern Med* (2002) **162**(6):649–56. doi:10.1001/archinte.162.6.649
11. Chaudhuri E, Mason NC, Newbery N, Goddard AF. Career choices of junior doctors: is the physician an endangered species? *Clin Med* (2013) **13**(4):330–5. doi:10.7861/clinmedicine.13-4-330

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Work–Life Balance: Hopeless Endeavor or Rather, a True Privilege?

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When I agreed to write this opinion piece on work–life balance, I quickly added it to my office whiteboard to-do list: "Work-Life Balance – October." These four words generated much discussion – from jokes about the short timetable that I have to achieve the perfect work–life balance to conversations about how we are all trying to find work–life balance.

As a female academic intensivist and both an ICU director and program director, I am constantly surrounded by trainees and intensivists. Even before the whiteboard conversation piece, work–life balance was a frequent topic of conversation.

Point is – we all want work–life balance and think it is the key to our happiness, but the idea of it can somehow create more stress and anxiety. In fact, if you have thought too hard about it and whether or not you have it, you likely are feeling like a failure.

Like most physicians, I do not like feeling like a failure so instead I now think of it more like this: it is a privilege to have a fulfilling career, but that does not for a second lessen the importance of my personal life and the people that I care about.

Though work–life balance seems to be a goal for so many, most cannot even agree on the definition. Wikipedia defines it as proper prioritizing between "work" (career and ambition) and "lifestyle" (health, pleasure, leisure, family, and spiritual development/meditation).

When I ask my physician friends how they define work–life balance, to some it means having enough time to fulfill all of your work and home responsibilities and to be able to prioritize the important events in both domains. In short – be where you need to be and do what matters the most to you on a given day. For others, it means separating your work life from your home life so that neither really interferes with the other on a regular basis because they should indeed be separate entities. Yet another friend jokes that it means that work and life have equal importance and influence but speaking for herself, she has too much life and too much work so that the scale, while balanced, has actually broken.

All the definitions seem flawed and set us up for failure because there are often not enough hours in the day for all the people that want or need us, whether it is our family, friends, patients, or colleagues. As academic physicians, I see no way of advancing our careers and keeping work and life completely separate. And no one wants to feel that work and life are balanced but that they are being pushed to the limit. So, are we talking about a hopeless endeavor to even strive for work–life balance?

The work–life balance debate also undoubtedly becomes an emotional one because it is one of those topics that force us to put our core values into conflict. It makes us feel that we have to choose one core value (perhaps our dedication to our loved ones and even ourselves) over another (our ambition to make our mark in this world and advance our careers while helping others). Almost everyone, when asked, would say that nothing is more important to them than their family and friends. It is controversial to say or think otherwise but yet as academic physicians, there is little doubt that our careers are also incredibly important to us.

Work is often stimulating, inspiring, fulfilling, and where we spend much of our time. Many of us are doing it partially to support our families but regardless, work in academic medicine does give

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us purpose and a unique opportunity to impact many lives – through research, through training a generation of physicians, through being a caring physician to our patients. We do it because we believe in it and most of the time, I really do think of it as a privilege.

For me personally as a program director, I feel at any given time that I am just trying to raise 20 kids at work and guide them to be the best that they can be (full disclosure – I do not have children of my own). When classes graduate and leave every year, I mourn their departure, but seeing how they turn out is often worth the sacrifices I have had to make in my personal life. Not all aspects of my professional life are worth it however and I am constantly weighed down by the emotional turmoil that comes from having to choose between one important thing that is the "correct" important thing and another important thing that is still extremely important and offers a way to impact more lives.

Interestingly, during my occasional stints on social media, I see many articles about how millennials (I am a gen-Xer based on my age and work philosophy) in fact are no longer striving for work–life balance – #worklifebalance=oldnews (1). Instead, they are seeking a healthy work–life blend. Modern companies, such as Google, have created work environments full of gourmet meals and recreational areas. My own millennial trainees want a gym at work. Of course, the consequences of this millennial philosophy are largely unknown and it is plausible that the sense of being "on call" all the time and the constant multitasking could lead to further work–life imbalance (2).

For me personally, several things have been key to maintaining at least a sense of work–life balance: flexibility, the support and understanding of others, blending my work and life in a healthy way (as the millennials want to do), and strategic time management. Many women physicians with children choose academic medicine largely for the flexibility. They can leave during work hours for a school activity and then choose to work until 7 p.m. I personally opt to work at midnight instead of 7 a.m. when possible.

More controversial than that is that I choose to spend several hours per week while on vacation overseas to deal with the e-mail barrage that comes in while I am away. Some are quick to criticize that as a sign that I do not have work–life balance. But that is the flexibility I choose that helps create my own personal sense of balance and minimizes my work-related stress.

Next is the support and understanding of others – which arguably is a key component to every success in our lives, both at home and at work. As an intensivist, I can unexpectedly get stuck in the hospital because of a sick patient – similarly as an academic physician in leadership, I can also get stuck in a late meeting. If either of these events results in me missing dinner or something even more important than dinner, I, personally, am already bathing in stress and guilt. So in my personal life, I have made a concerted effort to surround myself with people that are largely supportive and understanding. No one needs to make me feel guiltier than I already feel. I consider myself lucky but I know that many physicians do not have this luxury.

Similarly in the hospital, I have worked hard to build a supportive faculty that largely cares about one another. Most of us are willing to help cover each other so we can all better fulfill our non-work priorities. As my colleague recently remarked, "We will all do better in the long run if we look out for one another." As an intensivist, there is nothing worse than the feeling that you are rushing through a procedure or patient evaluation because you need to be elsewhere – several times in my career, I have had to make a concerted effort to slow down and relax so that the patient in front of me receives the care that they deserve. Having a supportive environment at work truly benefits everyone involved.

Another thing that sustains me is that I have found work–life blend after many years in academic medicine. Some of my closest friends are my colleagues – I can forget sometimes during a leisurely lunch that I am even working. Again this is a luxury but helps me immensely with feeling balanced at work, especially during a long or frustrating day.

Over the years, I have found that I truly do not mind integrating components of work into my life compartment and have stopped feeling guilty or judged for calling a patient after hours or texting my trainee back on a weekend that I am spending with my family. Really the one thing that we, as incredibly busy academic physicians, have to offer our loved ones and the people who depend on us at work is time. Balance is simply having the flexibility to choose how to divide your time without the constant feeling that someone is getting short-changed. Sometimes your life deserves more of your time – sometimes your work is what is taking up most of your time. Dividing your time in different ways at different points in your life is simply necessary and inevitable.

I personally try to allot my time to the people that will appreciate and benefit from it the most at any given time. I also block off time for my own sanity and rejuvenation so that I am better able to help others in my personal and professional life. I outsource tasks at home that I do not enjoy or have an aptitude for. I now choose projects at work more carefully. Is it a good use of my time that will lead to something meaningful for my career? Will the people that I give my time to appreciate it? Does it make more sense for me to delegate that task?

Whenever I think of achieving the perfect work–life balance, I am reminded of an article I read about Pepsi's CEO, Indra Nooyi, who used strategies, such as having her secretaries monitor her children's recreational privileges at home (3). She is often used as an example of a woman who has mastered work–life balance but has openly admitted that her own quest has been a struggle full of immense guilt. Perhaps half the battle is to acknowledge our limitations, cut ourselves some slack, and just do the best that we can. Our work colleagues, patients, and families/friends will hopefully understand.

As a last sentiment, I hope that academic medical centers realize the importance of providing an infrastructure of support that make our academic lives more sustainable. In an era of physician burnout and a high attrition of female faculty members at the associate professor level, I recently read with enthusiasm an article describing a new "time banking" program at Stanford's Emergency Medicine Department in which performing traditionally uncompensated academic tasks, such as mentoring, teaching, and committee service, leads to "credits" that help maintain work–life balance in physicians' lives by providing pre-arranged and compensated cleaning services, meals, childcare, and other household and work-related tasks (4–7). My institution provides childcare

resources on campus and the option of "stopping the clock" in the context of academic promotion and childcare responsibilities. There should also be support and funding for physicians to attend conferences focused on physician wellness and work–life balance. I plan to attend the AAMC Mid-Career Women Faculty Professional Development Seminar this year and will definitely make it a priority in my career to promote innovative interventions to promote work–life balance that keep talented academic physicians where they belong.

For my fellow academic physicians – I hope that you are able to find a healthy work–life blend that involves flexibility, strategic time management, and a world at home and at work that is full of support, understanding, and meaning with less guilt (self-imposed and from others) when we are simply just doing the best that we can. In the end, we are the lucky ones who have found a sense of fulfillment in both our work and home lives. Our constant struggle to find the perfect work–life balance should thus be viewed as a privilege, as the struggle itself is simply a sign that we have a number of core values that hold great importance in our lives.

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REFERENCES

1. Loflin J. *Millenials Don't Want Work-Life Balance*. Linked In. (2015). Available from: www.linkedin.com/pulse
2. Schawbel D. *Why Millennials Should Get Used to Work-Life Imbalance*. Time. (2014). Available from: www.time.com
3. McGregor J. *Indra Nooyi on Why Women can't Have It All*. The Washington Post. (2014). Available from: www.washington.post.com
4. Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. *Curr Opin Crit Care* (2007) **13**(5):482–8. doi:10.1097/MCC.0b013e3282efd28a
5. Speck RM, Sammel MD, Troxel AB, Cappola AR, Williams-Smith CT, Chittams J, et al. Factors impacting the departure rates of female and male junior medical school faculty: evidence from a longitudinal analysis. *J Womens Health* (2012) **21**(10):1059–65. doi:10.1089/jwh.2011.3394
6. Weinacker A, Stapleton RD. Still a man's world, but why? *Crit Care* (2013) **17**(1):113. doi:10.1186/cc11915
7. Schulte B. *Time in the Bank: A Stanford Plan to Save Doctors from Burnout*. The Washington Post. (2015). Available from: www.washington.post.com

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Work–Life Balance: Keep the Cycle Moving – Find a Purpose, Set Priorities, and Manage Time Well Then Reassess and Reset

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Keywords: work–life balance, work–life conflict, physician burnout, time management, mentorship

Life is like riding a bicycle. To keep your balance, you must keep moving. – Albert Einstein

We "the young physicians" are not immune to work and home stresses. On the contrary, we may be more prone to them (1). Dissatisfaction, depression, and burnout are common in physicians, especially in those with subspecialty training (2). Dyrbye et al. have found the lowest career satisfaction, greatest rates of work–life conflicts, and more significant depression in early-career physicians compared to middle- and late-career physicians (3). Despite the decrease in work hours, advances in the medical field, easier access to health information, and far superior connectivity to work and family members, young physicians continue to report high rates of dissatisfaction (4, 5). Physician dissatisfaction is an important issue and has significant consequences on various aspects of the modern health care system, including patient care, physicians' well-being, and growth and viability of the medical field. Though there is growing recognition of physician dissatisfaction and its consequences, few interventional studies have been done so far to address this problem (6–8). To tackle this issue would require both individual and institutional efforts to seek strategies to help this vulnerable group.

As a pediatric intensivist, physician–scientist, spouse of a pediatric neurologist, and father of 4-year-old boy, I have experienced several conflicts with work–life balance up to this point in my life, and I am sure there will be plenty more in coming years. There were times when I questioned myself, "Is this worth doing"? I sat down to think and remembered these words:

Thou has knowledge declared to you; reflect on it fully and act as you like – Bhagavad Gita

In the hustle and bustle of busy work schedules and chores of daily life, young physicians often let themselves operate in autopilot, although we forget that to successfully run in autopilot requires some key elements, including a destination (purpose), a path to follow (priorities and time management), and ongoing monitoring of the current situation (reassess and reset) (**Figure 1**).

The first step is to find the purpose in daily life to make it meaningful. Most young physicians feel dissatisfied and dispassionate in their work, because they do not see the need (purpose) behind it. Abraham Maslow proposed a "hierarchy of needs" in his milestone 1943 paper, "A theory of human motivation" (9). Maslow categorized needs as physiological, safety, love and belonging, self-esteem, and self-actualization. These needs are often depicted in the shape of a pyramid with the most fundamental needs at the bottom and the need for self-actualization at the top (9). These needs may not be universal and hierarchical as described by him and may vary from individual-to-individual. Marlow's categorization helps prioritize needs in a more organized manner. We should also take into consideration the needs of our family members and support group.

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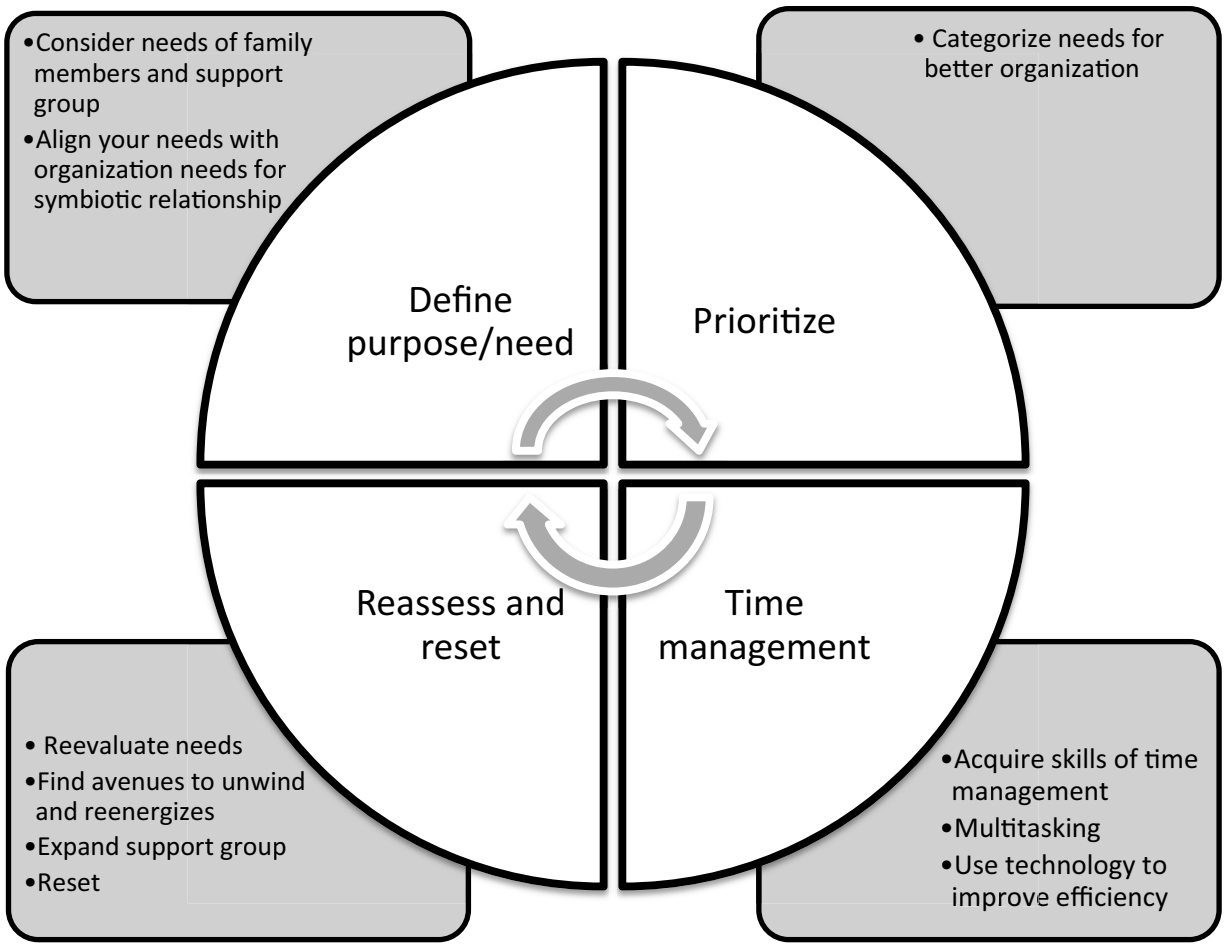

FIGURE 1 | Work–life balance: keep the cycle moving – find a purpose, set priorities, and manage time well then reassess and reset.

On the larger front, it is important for both the young physicians and the health care institutes to make an effort to align their needs to create a more symbiotic relationship (10). Effective leadership and job satisfaction are two interrelated factors, which are fundamental to institutional success. With the changing economy there is a shift in the needs of health care institutes with focus on productivity, sustainability, and cost control. Many institutional leaders have adopted a transactional leadership style to accomplish institutional needs. This approach may have increased stress in young physicians, who may feel pushed to see more patients in less time, put in long work hours and to do extra documentation. Young physicians may perceive that their role is to realize institutional financial gain, which may contribute to job dissatisfaction. The health care institutes will be benefited from having leaders with transformational leadership style to lead and motivate their young physicians. The dimensions of transformational leadership include idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. This notion is not new to the health care system; in a systemic review of 53 studies, nursing staff was found to be more productive, encouraged, and felt satisfied with the nursing leaders who had transformational leadership style (11). Successful leaders are not only able to identify a larger purpose to help society but are also good in communicating their vision and goals to their subordinates. Institutional leaders should encourage innovative ideas, provide protected time, and seek resources to help young physicians. Also, they should attempt to integrate young physicians in each step of the planning of institutional goals and overall vision. Better understanding of institutional goals may help young physicians in aligning their needs to the institutional needs.

The second step is the time management, an essential skill for young physicians to acquire. I remember the days in medical school when I could afford to focus and spend days on an assignment. Now it is not possible. I struggle to multitasking research experiments, grant and manuscript writing, literature review, patient care, fellow education, my son's school and social engagements – the list goes on. Unfortunately, young physicians receive very limited training in time management. Few medical publications are available to help improve time management skills for physicians (12–14). In an evidence-based review, Gordon and Borkan only found 15 publications describing time management techniques for physicians (14). The authors broadly classified

effective time management strategies into four categories: (1) setting short- and long-term goals, (2) setting priorities among competing responsibilities, (3) planning and organizing activities, and (4) minimizing "time wasters" (14). I have acquired most of my time management skills by emulating my role models and mentors. We should also take advantage of advances in information and communication technology, such as email, virtual meeting, and online organizer to manage time well. My hope is that in the future, bodies such as the Accreditation Council for Graduate Medical Education (ACGME) will recommend more formal training in time management skills for physicians-in-training.

Young physicians who strive to excel often push themselves to both physical and mental limits. It is important to find avenues to unwind and reenergize to prevent chronic fatigue and depression from setting in. One way to accomplish this is by engaging in physical and recreational activities. Physicians in the US are found to be more physical activity in comparison to the general US population, but the degree of physically activity varies with career stage and geographical areas (15). By contrast, Iwuala et al. have found only 20.8% of health care providers in Nigeria had adequate physical activity, and 71.3% of them had body mass index above recommended values (16). Residents and fellows are found to engage in less physical activity than attending physicians and medical students, probably related to longer and less flexible work hours (17). The ACGME has implemented duty-hour regulations, which have decreased work hours for residents and fellows, but studies are needed to evaluate whether they have translated into less mental and physical fatigue in this group of physicians. We should take lessons from companies such as Google Inc. and Apple Inc., who have developed campuses with easy access to various recreational facilities for their employees. Health care institutes across the nation provide limited if any, access to recreational facilities to in-house physicians. Development of such facilities by health care institutes may provide an avenue to help improve both mental and physical health of physicians. For me, seeing my son growing from an infant to a toddler full of curiosity and enthusiasm has been a great escape from all the intensity at work. To keep up with my son's energy, I started distance running and was able to run my first half marathon last year. The training has helped me improve my physical endurance and mental fitness.

Life is dynamic. We all go through major transitions and unexpected things happen. It is important to reflect to reassess one's needs and reset priorities from time-to-time. In medical professional life, major transitions occur at the conclusions of medical school, internship, residency, and fellowship. Similarly, in family life, we go through major transitions such as relationships, marriage, childbirth, and deaths of family members. These transitions pose different challenges, and it is our responsibility to plan ahead for foreseeable transitions. It is vital to identify and acquire essential skills to make each of these transitions smoother.

Lastly, there are many ways to success, but no one can do it alone. We have to build a strong network of support groups, both at work and home to fulfill our needs. Most successful young physicians have many mentors to guide them through their career and life. Young physicians would immensely benefit from strong mentor–mentee relationships by learning from mentors' valuable life experiences to prepare for major work and home transitions (18). However, successful mentoring requires both the mentor and mentee are committed and have interpersonal skills as well as support of the institution (19). I am fortunate to have many mentors so far to guide me in my so-far-nascent career and personal life.

In the week when I was writing this article, I also spent hours at the bedside while trying to manage a critically ill bone marrow transplant recipient patient with acute respiratory distress syndrome on extracorporeal membrane oxygenation (ECMO). The patient's mother asked me many challenging questions, "Is she going to survive?" "How long should we continue the ECMO support?" or "Have you seen anyone survive something like this?" The patient's mother was trying to take cues from my facial expressions and hoping for me to say something encouraging. My heart was full of emotion and mind was contemplating the words I should use. I wanted to be say something realistic yet hopeful. Somehow, I came up with, "I don't know the future and I know odds are against us, but we would not know for sure if we don't try." Next few days were challenging, but the patient made a remarkable recovery and weaned off ECMO. The patient's mother was beyond grateful to the entire team. It is moments like these that blur the distinction between "work" and "life." Work seems purposeful and life seems balanced. We "the young physicians" need to remind ourselves that our true purpose is to take care of people when they are most vulnerable.

To conclude, for me, it is not about the work–life balance. It is about finding your purpose in life both at work and at home – and striving to fulfill it. The balance is in the motion, so keep the cycle moving.

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REFERENCES

1. Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med* (2012) **172**(18):1377–85. doi:10.1001/archinternmed.2012.3199
2. Shugerman R, Linzer M, Nelson K, Douglas J, Williams R, Konrad R, et al. Pediatric generalists and subspecialists: determinants of career satisfaction. *Pediatrics* (2001) **108**(3):E40. doi:10.1542/peds.108.3.e40
3. Dyrbye LN, Varkey P, Boone SL, Satele DV, Sloan JA, Shanafelt TD. Physician satisfaction and burnout at different career stages. *Mayo Clin Proc* (2013) **88**(12):1358–67. doi:10.1016/j.mayocp.2013.07.016
4. Gong Y, Han T, Chen W, Dib HH, Yang G, Zhuang R, et al. Prevalence of anxiety and depressive symptoms and related risk factors among physicians in China: a cross-sectional study. *PLoS One* (2014) **9**(7):e103242. doi:10.1371/journal.pone.0103242
5. Sigsbee B, Bernat JL. Physician burnout: a neurologic crisis. *Neurology* (2014) **83**(24):2302–6. doi:10.1212/WNL.0000000000001077
6. Beckman HB, Wendland M, Mooney C, Krasner MS, Quill TE, Suchman AL, et al. The impact of a program in mindful communication on primary care physicians. *Acad Med* (2012) **87**(6):815–9. doi:10.1097/ACM.0b013e318253d3b2
7. Krasner MS, Epstein RM, Beckman H, Suchman AL, Chapman B, Mooney CJ, et al. Association of an educational program in mindful communication with

burnout, empathy, and attitudes among primary care physicians. *JAMA* (2009) **302**(12):1284–93. doi:10.1001/jama.2009.1384
8. West CP, Dyrbye LN, Rabatin JT, Call TG, Davidson JH, Multari A, et al. Intervention to promote physician well-being, job satisfaction, and professionalism: a randomized clinical trial. *JAMA Intern Med* (2014) **174**(4):527–33. doi:10.1001/jamainternmed.2013.14387
9. Maslow AH. A theory of human motivation. *Psychol Rev* (1943) **50**(4):370–96. doi:10.1037/h0054346
10. Berg JL. The role of personal purpose and personal goals in symbiotic visions. *Front Psychol* (2015) **6**:443. doi:10.3389/fpsyg.2015.00443
11. Cummings GG, MacGregor T, Davey M, Lee H, Wong CA, Lo E, et al. Leadership styles and outcome patterns for the nursing workforce and work environment: a systematic review. *Int J Nurs Stud* (2010) **47**(3):363–85. doi:10.1016/j.ijnurstu.2009.08.006
12. Crosby JW. Ten time-management tips for family physicians. *CMAJ* (2004) **170**(6):949–50. doi:10.1503/cmaj.1021781
13. Jackson VP. Time management: a realistic approach. *J Am Coll Radiol* (2009) **6**(6):434–6. doi:10.1016/j.jacr.2008.11.018
14. Gordon CE, Borkan SC. Recapturing time: a practical approach to time management for physicians. *Postgrad Med J* (2014) **90**(1063):267–72. doi:10.1136/postgradmedj-2013-132012
15. Stanford FC, Durkin MW, Stallworth JR, Blair SN. Comparison of physical activity levels in physicians and medical students with the general adult population of the United States. *Phys Sportsmed* (2013) **41**(4):86–92. doi:10.3810/psm.2013.11.2039
16. Iwuala SO, Sekoni AO, Olamoyegun MA, Akanbi MA, Sabir AA, Ayankogbe OO. Self-reported physical activity among health care professionals in South-West Nigeria. *Niger J Clin Pract* (2015) **18**(6):790–5. doi:10.4103/1119-3077.163275
17. Stanford FC, Durkin MW, Blair SN, Powell CK, Poston MB, Stallworth JR. Determining levels of physical activity in attending physicians, resident and fellow physicians and medical students in the USA. *Br J Sports Med* (2012) **46**(5):360–4. doi:10.1136/bjsports-2011-090299
18. Burns LJ, Clayton CP, George JN, Mitchell BS, Gitlin SD. The effect of an intense mentoring program on junior investigators' preparation for a patient-oriented clinical research career. *Acad Med* (2015) **90**(8):1061–6. doi:10.1097/ACM.0000000000000742
19. Sambunjak D, Straus SE, Marusic A. A systematic review of qualitative research on the meaning and characteristics of mentoring in academic medicine. *J Gen Intern Med* (2010) **25**(1):72–8. doi:10.1007/s11606-009-1165-8

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Work–Life Balance? It Is Not about Balance, but Priorities

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Keywords: work–life balance, critical care medicine, research, career, women

Work–life balance is a never ending topic of discussion among physicians. We constantly discuss how to juggle career advancement, marriage, and children in our daily professional life. Work always seems to be antagonistic to, rather than synergistic with, maintaining a personal life. However, true balance does not sink in until a moment arrives in your life when you consider giving up your career.

After finishing my critical care fellowship, things seemed to be going fairly well in my life. I had my family, my house, my job as a critical care physician, and my passion to do research. I love my work and am truly honored by the privilege to work with critically ill children and their families, who need good clinical advice and help to make the best decision for their precious ones. Yes, there are difficult moments physically and mentally for myself and my staff, but the fact that I can contribute to someone's critical life decisions has always motivated me and kept me going.

Despite being discouraged from pursuing a career as a physician scientist, I was stubborn enough to work hard and to obtain grants to launch my research projects. I was warned that I would have little success in balancing my life between my family, job as a critical care physician and role as a researcher. However, I enjoyed every painful, fun moment writing manuscripts and IRB applications and tried to collaborate with researchers from multiple disciplines. My view of medicine became wider and richer through research. When I met successful female physician scientists through the K 12 program and the Association of American Medical Colleges (AAMC) meeting, I was especially energized and the discouraging words against pursuing a career as a physician scientist faded away. Knowing that everybody goes through the same stage of life (struggling with career, family, and/or research) made me think that I am not alone in feeling overwhelmed and undervalued.

During weekdays, I did not mind working long hours as a single mother with my daughter while my husband was in training 1500 miles away. We only spent precious time as a united family during the weekend and went back to work doing research or being on service and taking calls in the ICU every Monday night. I still worked at night after my daughter went to sleep and took advantage of my husband being with my daughter during weekends.

When my daughter was about 20 months old, my husband became critically ill (without knowing the long-term sequelae), my life stability suddenly became very fragile without warning. I was pregnant with my second child, and everything became paralyzed. It is the worst experience for anyone to have your family member admitted to the ICU, but worse to know about everything that is happening around you, and unable to hide the fact that you are an intensivist. I went through so many scenarios without answers in my head and realized that time is the only medicine to take care of this crisis. What if he was neurologically devastated? Would he come home with a tracheostomy and mechanical ventilation? Would I have any help to take care of my husband and children? Would my children ever play with their daddy? During his hospitalization, I completely shut down any incoming contacts, including flower delivery, family visits, and phone calls. I wanted to be a wife next to my husband who was paralyzed and mechanically ventilated, not an intensivist. All my colleagues were wonderful helping me to get through this crisis, and I learned a lesson from them – unless I was well, I could not take care of my husband, daughter, or unborn child.

After this extreme situation, the importance of my family as a foundation became clear, and being a physician or a researcher is now an additional factor to enrich my life. Right after discharge from the ICU, a 2013 nor'easter covered the New England area in snow. My husband insisted that we go skiing

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2 days after discharge from the ICU. Now, I switched to my role as an intensivist to tell him "no"; however, my wish was defeated by his strong desire. Ski boots helped his foot drop, and albuterol in my pocket gave me a sense of security. However, seeing my husband standing on the snow-covered slope was the most effective spiritual therapy for both of us to recover from the delirium and posttraumatic stress disorder brought on by the ICU. I never had so much appreciation for having a simple but complete life. Sipping a cup of apple cider in our hands and joking with my husband with smiles on our faces, the snow-covered mountain reminded me of what is most important in life: family.

Several studies have been done by groups, including the AAMC looking at female physicians' career success. Despite the increase in the number of women entering medical school and residency over the years (close to 50%), only one-third of full time faculty and 21% of full professors are women (1). The progress and challenges for women in academic medicine are not new (2). Little flexibility for promotion criteria and a narrowly defined "success" path in academia that is more suitable for males does not accommodate the differences in women's career trajectories (2). At the same time, one study showed that female physicians with children have lower value in terms of career success and career support experiences than male physicians. In the same study, females showed higher levels of life satisfaction overall, where friends, leisure activities, and income are concerned, despite the negative impact that parenthood has on these career factors (3). Where do I stand now?

In my case, balance is based on the pyramid of my family at the bottom and work at the top, instead of parallel to each other. Neither should conflict with the other. Being an intensivist, my appreciation of life sank in even deeper after my learning lesson. I cannot sustain myself without this foundation. From these critical moments, I decided to devote 100% of my time to family when I am not in the hospital.

In one survey looking at work–life balance, both male and female gynecologists reported that work–life affected their private life in a similar way, causing them to neglect both their partner and children due to their work (4). I cannot neglect my family, even when I am at work, and I should not. There are many intensivists available to take care of sick children's; however, I am the only one for my family. I try not to stay up late to write grants and manuscripts at home, and I do not feel guilty about it. Instead, I spend my time cooking for my family, bathing, and reading books to my children daily. I make their bento box and drop them off at school as long as I am not on service. This is part of my life as a mommy intensivist. If I did not have children, I would have spent the time on career development, including educating residents/fellows, and administrations. I am probably juggling between work and kids in a similar way to other scientists in the laboratory (5). However, as an intensivist dealing with a critical situation at the bedside, I cannot leave my patient to come back the next day the way that a basic scientist can. If I had to leave the lab I could always repeat any experiments that failed in my absence, but I cannot apply the same mentality to my patients in the intensive care unit. This is how my clinical and research work get prioritized. Prior having my children, I chose to devote my time on research. I may not be a successful world-class researcher, but I am persistent with what I feel is right at the moment, and I feel good about doing something I am passionate about. I may prioritize my piles of work terribly some days, and I may do fairly well other days. That is okay with me. I have to accept my abilities and myself at my level of career and family requirements.

Sometimes, I may have to say no to my colleagues based on my priorities. I ask my help from my colleagues when I need, and I offer my help to others when I can. My family foundation gives me stability, energy, and appreciation at work. I look at the world through very different glasses than before I was a parent. The goal and purpose of life can be liquid, and I embrace them at each stage of my life. My priority has changed over years as my training and career have advanced, and I personally think that is how life should be. One may have issues with own parents or siblings even one may not be married and not having children, and taking care of them as a priority over the career. When my children grow up and do not need me right next to them, I will shift my priorities to what motivates me at that time.

Many factors contribute to women physicians leaving academic institutions early in their career (6). However, Levine et al. concluded that disconnection or discrepancy between their own priorities and those of the institution is the main reason for women physicians to leave academic institutions early in their career. I personally think improvement in work–life balance comes from having a conducive work atmosphere and a customized approach to individual needs on an institutional level of understanding and support.

I would encourage connecting yourself with peers in similar situations in your own institution. Sometimes, human resources or administration can facilitate this through faculty development courses or seminars; these may provide networking opportunities among faculty with similar career goals. I attended as many of these as I could to learn from the others with different perspectives how to overcome difficult situations. At the national level, the AAMC is a great organization to provide mentoring, networking, and opportunities to know peers through, for example, the Early Career Women Faculty Professional Development Seminar. As Sapey concluded, we may see light coming through the old school system, evolving to become better suited to physicians with families (7). One way or another, everyone goes through similar stages of life or crisis. So, why do not we respect each other and support our journey toward success?

At the end of my life, I would like to be recognized as a wife and a mother first, rather than a physician or researcher in a particular field. This is my priority.

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REFERENCES

1. Colleges AoAM. *The State of Women in Academic Medicine 2013-2014* (2015). Available from: https://members.aamc.org/eweb/upload/The%20State%20of%20Women%20in%20Academic%20Medicine%202013-2014%20FINAL.pdf
2. Hamel MB, Ingelfinger JR, Phimister E, Solomon CG. Women in academic medicine – progress and challenges. *N Engl J Med* (2006) **355**(3):310–2. doi:10.1056/NEJMe068143
3. Buddeberg-Fischer B, Stamm M, Buddeberg C, Bauer G, Haemmig O, Knecht M, et al. The impact of gender and parenthood on physicians' careers – professional and personal situation seven years after graduation. *BMC Health Serv Res* (2010) **10**:40. doi:10.1186/1472-6963-10-40
4. Hancke K, Igl W, Toth B, Buhren A, Ditsch N, Kreienberg R. Work-life balance of German gynecologists: a web-based survey on satisfaction with work and private life. *Arch Gynecol Obstet* (2014) **289**(1):123–9. doi:10.1007/s00404-013-2949-y
5. Powell K. Work-life balance: lab life with kids. *Nature* (2015) **517**(7534):401–3. doi:10.1038/nj7534-401a
6. Levine RB, Lin F, Kern DE, Wright SM, Carrese J. Stories from early-career women physicians who have left academic medicine: a qualitative study at a single institution. *Acad Med* (2011) **86**(6):752–8. doi:10.1097/ACM.0b013e318217e83b
7. Sapey E. Work-life balance in academic medicine. *Lancet* (2015) **385**(Suppl 1):S6–7. doi:10.1016/S0140-6736(15)60322-1

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Stone Throwing in the Glass House

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Keywords: empathy, moral judgment competence, doctor–patient relationship, dehumanization, standard of care, work–life balance

A small girl with a unique genetic syndrome lies in bed since birth. Her brain does not work. She is in a persistent vegetative state. Recurrent seizures punctuate her intractable epilepsy. She shows no meaningful interaction. Her breathing is insufficient. Upper airway obstruction, repeated aspiration events, chronic lung disease, and scoliosis make her struggle to breathe. Her parents never wanted her to suffer. Two years ago, they agreed to a Physician Orders for Life-Sustaining Treatment (POLST). Their daughter would not undergo resuscitation. Death did not come, however. With meticulous medical care, her body grew. Her breathing worsened. Offered either palliation or a tracheostomy tube, her parents chose "trach." With easier breathing, the girl expended fewer calories. She continued gastrostomy tube feeds and gained 10 pounds in 3 months. Now she is rehospitalized with respiratory distress. Her weight rises another 2 pounds. We put off calorie reduction for the outpatient setting. For the first time, we discharge the family home with a mechanical ventilator. Our collective health-care efforts have set up a protracted course whose likely end will come in overwhelming sepsis or ARDS, rather than allowing natural death with palliative care. How many ethical issues were raised by this case? I count more than 40 (**Table 1**).

Physicians make ethical decisions constantly in health care without formal training in moral practice. Consequently, we leave most moral issues unaddressed. Instead, we concretize and categorize patient complaints into physical and mental issues to be addressed functionally (1). For instance, I may not be able to help a boy dying of cancer with his existential loneliness, but I can prescribe morphine for his respiratory distress. As a doctor trained in physiological intervention, this essentialization of clinical questions is justified by the ethical principle of beneficence. We focus on how we can help patients. However, this practice dehumanizes patients and leaves important overarching questions unaddressed. As Agledahl et al. wrote, "Even if your clinically sound decision is morally motivated, it may not necessarily be the morally good thing to do" (1).

What is the effect of practicing medicine without addressing moral issues? Does clinical practice diminish our own humanity? Studies of our medical trainees may shed some light. Remarkably consistent studies have observed that empathy declines in medical students and resident trainees during their clinical years, but not during preclinical education (2). Students are subjected to mistreatment by mentors, loss of idealism when faced with clinical realities, isolation from social supports, high workload, lack of sleep and personal time, and a fragmented patient–physician relationship (2). Furthermore, the evolving electronic medical environment may be reducing trainees' time spent in patients' rooms. Pediatric interns and residents now spend only 12% of their time with patients, but 21% on computers and 35% communicating with colleagues (3).

One could argue that limited empathy can improve problem-solving ability and competent health care (4). But what about the moral aspect of medicine? Unfortunately, clinical training impairs moral development. Repeated studies over the past 20 years observed that medical students fail to attain normal moral development and may even decline in moral reasoning capacity during their 4 years of medical school (5–9). Ethics lectures and clinical experience fail to

Abbreviations: ALS, advanced life support; ARDS, acute respiratory distress syndrome; BLS, basic life support; IOM, Institute of Medicine; IV, intravenous.

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TABLE 1 | Ethical issues raised by the case.

- **Autonomy**
  - Patient's autonomy: no independent ability to make choices
  - Parental autonomy
    - Difficult choices
      - Medical
      - Spiritual or philosophical
      - Personal
      - Financial
      - Mother's preferences vs. father's preferences
    - Evolving attitudes
      - Gastrostomy tube and artificial feeds
      - Physician Orders for Life-Sustaining Treatments (POLST)
      - Treatment of infections
      - Avoidance of mechanical ventilation and intensive care
      - Respiratory support *via* bilevel positive airway pressure
      - Respiratory support *via* non-invasive mechanical ventilation
      - All care at home, not subacute care facility
      - Tracheostomy tube instead of palliation
      - Intensive care
      - Acquiescence to home mechanical ventilation
      - Discontinuation of POLST
  - Physician autonomy
    - Choices we offer
      - Gastrostomy tube vs. no gastrostomy tube
      - Tracheostomy tube vs. palliation
      - Intensive care vs. no intensive care
      - Home mechanical ventilator vs. no home mechanical ventilator
      - No offer of scoliosis treatment
      - Timing of choices
        - Withholding certain choices because of patient's poor prognosis
        - Delay in therapies associated with longer patient suffering
    - Choices we make
      - Avoidance of blood gas evaluations
      - Allowing weight to rise
      - Limits of time spent educating and consulting with parents
      - Native language interpreter for only the most important conversations
- **Beneficence**
  - Support of parents' psychosocial needs
  - Maintaining patient's life while holding out hope for neurologic improvement
  - Relief of dyspnea
  - Treatment of infections
  - Relief of hunger
  - Intermittent intensive medical care
- **Non-maleficence**
  - Avoidance of neurologic depressive adverse effects of antiepileptics
  - Patient's experience of suffering
    - Inability to express
      - No vocalization
      - Non-specific response to pain
      - Non-specific eye opening
      - Rare spontaneous smiles
    - Dyspnea
    - Constipation
    - Pain and discomfort of medical procedures
      - Phlebotomy
      - Intravenous access
      - Respiratory suctioning
  - Parental understanding
    - Death: physiologic state vs. mysterious ending
    - Physicians' consideration of parents' attachment to child vs. child's own suffering
- **Justice**
  - Use of intensive care beds
  - Expenditure of subspecialty personnel effort and time

correct this deficiency. One reasonable hypothesis supposes that overemphasis on memorization of facts, obedience to authority, and application of rules based on practice standards, evidence, and cost limits might impede the development of higher order "postconventional," or ethically principled, thought (7, 8). An evidence-based solution for teaching moral clinical practice is lacking. Despite that, the next time a pediatrics intern struggles with an uncooperative family and wants to spend more time considering the merits of the parents' arguments, I will quell my inner urge to cut them off in order to move on to the next patient.

Years ago as a sleepless young attending, I paced behind a nursing station. Alarms rang and were silenced, while a faint scent of bleach permeated the air. A previously vivacious toddler, now glassy eyed, was breathless with acute viral bronchiolitis. For the second time, I approached the mother and said, "Your daughter needs help to breathe. We need to place her on a mechanical ventilator."

Cradling her daughter in her arms, the mother looked directly in my eyes. She said, "No."

Exhortations by our chief of emergency medicine yielded the same negative response. Against my better judgment, I agreed to trial high flow oxygen in my pediatric intensive care unit. The poor girl struggled all night, lost her intravenous (IV) catheter, and decompensated during attempts to regain IV access. After I finally intubated the child against the wishes of the parents, shortly thereafter the girl suffered cardiac arrest. Two hours of coding with a multidisciplinary team of 20 people was of no use. She was dead. First, I lost faith in parental "autonomy" to make health-care decisions for their children. Worse yet, I then lost faith in my colleagues. While making allowance for my emotionally laden and possibly inaccurate perceptions, I recall uniformly negative feedback from all corners. There was neither support nor empathy.

Why did this happen? Was I treated as less than a person in both the clinical encounter and sequelae? While we discussed above the failure of doctors to treat the whole person, we now focus on how doctors are themselves treated. Dehumanization in medicine goes both ways. People who feel a greater need for medical services recall fewer personal facts about their doctors, want physicians who focus only on their patients, and are less likely to perceive their physicians as having personal attributes or personal lives (10). This leads to the counterproductive result that patients with the greatest medical need are least able to communicate effectively with their most "instrumental" physicians.

A cultural loss of trust in the doctor–patient relationship also plays a role. As famously pointed out by the Institute of Medicine (IOM) (11), deadly medical errors are common. Despite tremendous improvements in US health-care quality since the IOM report (12), popular news continues to trumpet, "Medical errors in Indiana hit another high" (13). Loss-frame messaging (14) undermines the public trust in health-care providers, prejudicing perceptions of incompetence and aloofness.

Physicians ourselves add to the negative chorus. This was formally documented in a standardized covert patient study of consenting physicians (15). In a referral group of oncologists and family physicians, conversations about the

other doctor were recorded and analyzed. The large majority of comments – 67% – were Critical, while only 29% were Supportive and 4% Neutral. For most health-care providers, these results should be no surprise. Doctors criticize doctors as lustily as do patients. Nevertheless, I seem to perceive the situation improving recently as doctors place greater emphasis on professionalism.

Some criticism may be understandable, however. Our own "standard of care" is riddled with mistakes. In the decade from 2001 to 2010, a study of 363 original articles testing standard of care found that 146 (40%) reversed accepted medical practices (16). Among these reversals were such entrenched pediatric interventions as imaging studies after first febrile urinary tract infection in young children, high-dose epinephrine for children with in-hospital cardiac arrest, and early insertion of tympanostomy tubes for persistent otitis media >3 months or persistent middle ear effusions. The critical care literature has noted reversals in low-dose dopamine to improve renal blood flow (17), early goal-directed therapy bundles and activated protein C for septic shock (18), gastric residual volumes to guide enteral feeds (19), standard single syringe size for pediatric inotrope infusions (20), and bowel rest for acute pancreatitis (19). A particularly troubling study demonstrated longer waiting times, slower and less use of thrombolysis, and worse mortality for in-hospital than community onset stroke (21). In the last few months of 2015 alone, additional decades-old practices were called into question. Advanced life support (ALS) may be inferior to basic life support (BLS) for out-of-hospital medical emergencies (22). Calcium supplementation may offer no net benefit for bone mineral density or fracture prevention (23, 24). Hypotonic fluids should no longer be used for maintenance fluids (25). One could understand why the public, and physicians ourselves, are confused about whether doctors actually know anything. Thus, the glass house of medicine requires constant rebuilding, not stones cast from within.

The evidence is consistent and clear on deficiencies in physician empathy, moral judgment, and collegial humility. Is this a work–life issue? Do the compromises we make to our core values at work affect our overall personhood? Indeed, yes. This goes beyond feeling sad about a patient death or being inconvenienced by our hectic work schedules. Much is written about what "you" the individual can do to achieve work–life balance, but how we treat each other at work affects all of our lives. At the end of the day, we cannot dismiss our work ills as easily as doffing our white coat. Some dare go so far as to declare our work problems a matter of life and death. In one of the most thorough studies of its kind, a 20-year prospective observational study of 820 healthy employees examined multiple job stresses and found only one overall independent predictor of mortality: peer social support (26). In other words, the way we treat each other at work affects our ultimate outcome measure for clinical studies, mortality. Fortunately, the problems we have created in our health-care system are something we can correct together. Together, we need to remember who we hoped to become when we wrote our medical school application essays. Together, we can strive to show the compassion we feel inside, allow each other to say the word love, and provide the care we yearn to, for our patients and our coworkers. As we heal our patients, we can also heal each other.

A common theme underlay my medical school, pediatric residency, and pediatric critical care fellowship training: "You never learn so much as when you're screwed." Putting medical students and trainees on the spot with pimping and publicly pronouncing negative feedback were embraced. As medical educators, mentors, and colleagues in the modern era we now must teach and behave differently from how we learned. What was once malignant needs to be replaced with understanding and care. Collegiality must replace competition. Expressions of gratitude benefit both the recipient and the person who expresses it (27). Incidentally, the same principles apply to how we treat our families outside of work. The happiest families remember to thank each other (28), and the happiest lives are lived in love (29). Even though physicians' work–life balance may be dominated by our work, one of our most important clinical responsibilities is to help each other be and live well.

AUTHOR CONTRIBUTIONS

JL conceived of the idea for this manuscript, conducted the literature review, and drafted the manuscript.

REFERENCES

1. Agledahl KM, Førde R, Wifstad A. Clinical essentialising: a qualitative study of doctors' medical and moral practice. *Med Health Care Philos* (2010) **13**(2):107–13. doi:10.1007/s11019-009-9193-z
2. Neumann M, Edelhäuser F, Tauschel D, Fischer MR, Wirtz M, Woopen C, et al. Empathy decline and its reasons: a systematic review of studies with medical students and residents. *Acad Med* (2011) **86**(8):996–1009. doi:10.1097/ACM.0b013e318221e615
3. Starmer AJ, Destino L, Yoon CS, Landrigan CP. Intern and resident workflow patterns on pediatric inpatient units: a multicenter time-motion study. *JAMA Pediatr* (2015) **169**(12):1175–7. doi:10.1001/jamapediatrics.2015.2471. Author
4. Haque OS, Waytz A. Why doctors should be more empathetic – but not too much more. *Sci Am* (2011). Available from: http://www.scientificamerican.com/article/doctors-and-dehumanization-effect/
5. Self DJ, Schrader DE, Baldwin DC, Wolinsky FD. The moral development of medical students: a pilot study of the possible influence of medical education. *Med Educ* (1993) **27**(1):26–34. doi:10.1111/j.1365-2923.1993.tb00225.x
6. Self DJ, Baldwin DC. Does medical education inhibit the development of moral reasoning in medical students? A cross-sectional study. *Acad Med* (1998) **73**(10 Suppl):S91–3. doi:10.1097/00001888-199810000-00056
7. Patenaude J, Niyonsenga T, Fafard D. Changes in students' moral development during medical school: a cohort study. *CMAJ* (2003) **168**(7):840–4.
8. Neves Feitosa H, Rego S, Unger Raphael Bataglia P, Castelo Branco Sancho KF, Rego G, Nunes R. Moral judgment competence of medical students: a transcultural study. *Adv Health Sci Educ Theory Pract* (2013) **18**(5):1067–85. doi:10.1007/s10459-013-9449-5
9. Murrell VS. The failure of medical education to develop moral reasoning in medical students. *Int J Med Educ* (2014) **5**:219–25. doi:10.5116/ijme.547c.e2d1
10. Schroeder J, Fishbach A. The "empty vessel" physician: physicians' instrumentality makes them seem personally empty. *Soc Psychol Personal Sci* (2015) **6**(8):940–9. doi:10.1177/1948550615597976
11. Institute of Medicine. *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy of Sciences (1999). 8 p.
12. Agency for Healthcare Research and Quality. *2014 National Healthcare Quality and Disparities Report*. Rockville, MD: Agency for Healthcare Research and

Quality (2015). AHRQ Pub No. 15-0007. Available from: http://www.ahrq.gov/research/findings/nhqrdr/nhqdr14/index.html
13. Rudavsky S. *Medical Errors in Indiana Hit Another High: Would You Be Better Off as a Hospital Patient in Indiana or Washington?* Indianapolis Star (2015). Available from: http://www.indystar.com/story/news/2015/10/21/medical-errors-report-2015-indiana-state-department-of-health/74342862/
14. Verma AA, Razak F, Detsky AS. Understanding choice: why physicians should learn prospect theory. *JAMA* (2014) **311**(6):571–2. doi:10.2307/1914185
15. McDaniel SH, Morse DS, Reis S, Edwardsen EA, Gurnsey MG, Taupin A, et al. Physicians criticizing physicians to patients. *J Gen Intern Med* (2013) **28**(11):1405–9. doi:10.1007/s11606-013-2499-9
16. Prasad V, Vandross A, Toomey C, Cheung M, Rho J, Quinn S, et al. A decade of reversal: an analysis of 146 contradicted medical practices. *Mayo Clin Proc* (2013) **88**(8):790–8. doi:10.1016/j.mayocp.2013.05.012
17. Fink MP. Integrated critical care organizations. *Crit Care Med* (2015) **43**(10):2047–8. doi:10.1097/CCM.0000000000001286
18. Perner A, Myburgh J. Ten "short-lived" beliefs in intensive care medicine. *Intensive Care Med* (2015) **41**:1703–6. doi:10.1007/s00134-015-3733-1
19. Marik PE. Enteral nutrition in the critically ill. *Crit Care Med* (2014) **42**(4):962–9. doi:10.1097/CCM.0000000000000051
20. Neal D, Lin JA. The effect of syringe size on reliability and safety of low-flow infusions. *Pediatr Crit Care Med* (2009) **10**(5):592–6. doi:10.1097/PCC.0b013e3181a0e2e9
21. Saltman AP, Silver FL, Fang J, Stamplecoski M, Kapral MK. Care and outcomes of patients with in-hospital stroke. *JAMA Neurol* (2015) **72**(7):749–55. doi:10.1001/jamaneurol.2015.0284
22. Sanghavi P, Jena AB, Newhouse JP, Zaslavsky AM. Outcomes of basic versus advanced life support for out-of-hospital medical emergencies. *Ann Intern Med* (2015) **163**(9):681–90. doi:10.7326/M15-0557
23. Bolland MJ, Leung W, Tai V, Bastin S, Gamble GD, Grey A, et al. Calcium intake and risk of fracture: systematic review. *BMJ* (2015) **351**:h4580. doi:10.1136/bmj.h4580
24. Tai V, Leung W, Grey A, Reid IR, Bolland MJ. Calcium intake and bone mineral density: systematic review and meta-analysis. *BMJ* (2015) **351**:h4183. doi:10.1136/bmj.h4183
25. Ingelfinger JR, Moritz ML, Ayus JC. Maintenance intravenous fluids in acutely ill patients. *N Engl J Med* (2015) **373**(14):1350–60. doi:10.1056/NEJMra1412877
26. Shirom A, Toker S, Alkaly Y, Jacobson O, Balicer R. Work-based predictors of mortality: a 20-year follow-up of healthy employees. *Health Psychol* (2011) **30**(3):268–75. doi:10.1037/a0023138
27. Jackowska M, Brown J, Ronaldson A, Steptoe A. The impact of a brief gratitude intervention on subjective well-being, biology and sleep. *J Health Psychol* (2015). doi:10.1177/1359105315572455
28. Lin G. *Where the Mountain Meets the Moon*. 2nd ed. New York; Boston: Little, Brown Books for Young Readers (2009). 278 p.
29. Vaillant GE. *Triumphs of Experience: The Men of the Harvard Grant Study*. Cambridge, MA: Belknap Press (2012). 480 p.

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OPINION
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We Can, but Should We?

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Keywords: pediatric, cardiopulmonary resuscitation, resiliency, burn-out, global health

We can, but should we? After recently reflecting upon our profession as pediatric critical care physicians, I concluded that this one complex question gets asked many times throughout the day – or at least it should. A recent report discussed an emerging paradigm in pediatric critical care medicine (1). With more and more chronic patients filling our pediatric intensive care unit (PICU), perhaps we should all stop and take a breath. Are we here to cure, or are we here to heal?

My views regarding life and death have certainly evolved over the last 10 years – and I think this evolution has been for the better. Although I hesitate to preach how we, as pediatric critical care physicians, should interpret our hospital work given our varied cultural, familial, and experiential backgrounds, perhaps I can simply suggest that we need to. We are, after all, human beings who have emotions, relationships, goals, and, hopefully, a sense of vocation.

Resiliency has become the new buzzword. Our pediatric residents are now embarking on resiliency training utilizing the Families OverComing Under Stress (FOCUS) program (2, 3). I have joined them. I recently filmed a piece chronicling my career and personal life particularly focusing on my time as an intensivist. Even though I tell my story, we want trainees to see that processing their own professional and personal timelines can put their career in perspective. Whether you enjoy watching a professional sports team or going out on date night to deal with the stresses of your professional life, that is not the point. The point is we need to model a healthy lifestyle for our trainees.

What has recently concerned me, however, is the unhealthy, yet popular, strategy of completely separating one's work life from one's personal life. When we speak of work–life balance, the important term is "balance." Just look at the medical students we teach. Over a 3-day period, I recently taught the basics of cardiopulmonary resuscitation (CPR) to a group of 172 medical students. My colleague and I in rapid-fire 20-min sessions gave them just a taste of what we routinely do in the PICU. I cannot tell you how struck I was to see and hear their enthusiasm for medicine and their career choice. I hope they saw the same in me, but I know there are plenty in our field who are burnt out and should never teach such impressionable learners without first processing their own careers and lives. Once, they were just like these students. What happened?

I am not suggesting that we keep our pagers on around the clock or our work email on push. We all need our rest and recovery. We need to enjoy a good movie. We need to see family. We need to catch up with friends. But we also need to recover our vocation. Our vocation is to heal children. Our vocation is to teach. Our vocation is to speak up for those who need our help. Our vocation is to accept death and suffering just as we accept life. Here is the critical point. Life cannot be compartmentalized. Discomfort, pain, and death are part of life, and divorcing the tragedies we see in the PICU from our personal life is not healthy. We need to accept this and not live our personal lives in the opposite extreme.

Perhaps that is why we are seeing more burn-out. Yes, the stresses of medical insurance, access to care and poverty are real, but who wants to go to work if work is tragic and home is debauchery – or at least fantasy? I fear this has created a culture of clocking in and clocking out because no one is allowed to infringe on my pleasure – ever.

We are allowing our field to become overrun by protocols and technology. We are doing less doctoring – perhaps because we can. There is a life-support machine for nearly every organ. Why not use them? There is a "proven" protocol for nearly every malady out there. Why not try them? Our

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families are asking for them. How can we say, no? Starting some heroic measure or intervention is easy. Forget about discussing the merits of such an intervention. I can leave the discussion regarding its stoppage to my colleague on the next shift. I have plans after work. I can justify my actions because my family "wants everything done." Well, as a nursing colleague flippantly said to me recently, "I want a pony, too," when we were discussing this all too common edict.

At a medical conference I once attended, an astute professional got up to discuss just this command and how we cringe. I think every physician cringes when they hear these words. We should not. As this gentleman said, the correct answer to such an imposition is, "Everything includes comfort care, too."

Why do we cringe? I postulate that, deep down, we know the answer. We know that we were called to heal, but now we cannot let go. We have a machine. We have a protocol. We cannot give up. We have power at our fingertips. But we cannot allow the ultimate pain and discomfort of death to become part of the conversation. Perhaps this is because our personal lives must always be comfortable, too. I think our patients' parents share our view.

I know we can all think of that one family who stopped us in our tracks when they said no to us – no to dialysis, no to intubation, no to surgery, and no to transplantation. We have all shared these stories with our colleagues. "Can you believe they said no?" Why is this a special event in our professional lives? Why did we feel the need to tell our colleagues? Perhaps because this was a refreshing view – a rare voice crying out for comfort. Can you remember how satisfied you were to care for this patient and their family? Because, for this rare moment, you were a complete physician. You provided comfort. You were allowed to make someone's life a little more humane. Preserving life at all costs is not what we were called to do. We were called to heal.

I came across my medical school's guiding principle recently, *cura personalis*. The translation from Latin is care for the entire person. I remembered hearing that principle when I attended Georgetown University, but I know I did not fully appreciate its meaning until now. My fellowship research had focused on extracorporeal cardiopulmonary resuscitation (ECPR) (4). How could practitioners identify patients during CPR who would survive ECPR? I examined objective data. What I could not examine was how many physicians said no to even considering this heroic intervention. Who were these physicians? How many were there? Now we should ask, can we be one of them, ourselves?

My international medical work in Mozambique and Peru has focused on teaching pediatric CPR skills. ECPR is not an option in these settings. Here, suffering and death are a part of life. Families grieve, and physicians comfort. There are no heroic demands made. We should be spending resources on making opioids available in developing countries to alleviate suffering. We likely should be counseling and debriefing our global health trainees who return to the expansive medical resources of developed countries. How do our trainees adjust? What do they learn from their experiences? How are their careers shaped by these missions? A recent study by Balmer and colleagues touches on this global health reality and need (5). Perhaps we need to send more staff abroad – including nurses, respiratory therapists, and administrators – to refocus our priorities. Such work for me has shaped my perspective in recent years. I no longer look at ECPR in objective terms. We can, but should we?

We need to emphasize the word, balance, in our daily lives. Emotions are a part of life, and we must find meaning in what we do at work and at home. Taking time to reflect on both the good and the bad is healthy. We need to teach not only our trainees but also our seasoned colleagues how to do this. Modeling can be helpful. Writing pieces such as this one can be helpful. In my opinion, you should leave the field if you cannot or refuse to do this. We need to rekindle that enthusiasm I saw in my medical students. We need to revisit the meaning of vocation. We need to stop compartmentalizing our emotions and experiences.

By no means should we throw in the towel when the going gets tough. Do not take the easy way out. If you truly think a therapy could help, by all means try it. We need to push the envelope sometimes, but I would hazard a guess that we all know when that time has passed. Embrace it, heal, and provide comfort. *Cura personalis*. Perhaps that person should be you, first.

AUTHOR CONTRIBUTIONS

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REFERENCES

1. Rennick JE, Childerhouse JE. Redefining success in the PICU: new patient populations shift targets of care. *Pediatrics* (2015) **135**(2):e289–91. doi:10.1542/peds.2014-2174
2. Lester P, Mogil C, Saltzman W, Woodward K, Nash W, Leskin G, et al. Families overcoming under stress: implementing family-centered prevention for military families facing wartime deployments and combat operational stress. *Mil Med* (2011) **176**(1):19–25. doi:10.7205/MILMED-D-10-00122
3. Lester P, Saltzman WR, Woodward K, Glover D, Leskin GA, Bursch B, et al. Evaluation of a family-centered prevention for military children and families facing wartime deployments. *Am J Public Health* (2012) **102**(Suppl 1):S48–54. doi:10.2105/AJPH.2010.300088
4. Kelly RB, Harrison RE. Outcome predictors of pediatric extracorporeal cardiopulmonary resuscitation. *Pediatr Cardiol* (2010) **31**(5):626–33. doi:10.1007/s00246-010-9659-z
5. Balmer DF, Marton S, Gillespie SL, Schutze GE, Gill A. Reentry to pediatric residency after global health experiences. *Pediatrics* (2015) **136**(4):680–6. doi:10.1542/peds.2015-1255

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When the Well is Dry, We Know the Worth of Water

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Keywords: work–life balance, self-reflection, self-perception, expectation, well-being

When I was asked to write an article about work–life balance, I told my wife and she innocently asked me, "In order to write about work–life balance, don't you need to have a work–life balance first?" After all of these years of practice, didn't I have that balance worked out? Was my perception totally inaccurate? I know that struggling to balance my work and life outside of work has been something that I have been keenly aware of for some time. Nevertheless, it seems as though I have more work to do! And gathering from the request to write a piece on this topic, I am not alone in this struggle. So, I started contemplating the etiology of the work–life balance problems, when I noticed the importance of work–life balance, the benefits of and obstacles to work–life balance, and how I would try to solve the problem for myself.

The struggle between competing priorities is the crux of the work–life balance problem. But, in order to have a struggle, one must realize that there is a problem and possess some degree of self-awareness. If there is no perceived problem, then a struggle will not exist and one would assume balance. Most of this perceived problem or lack of a problem is determined by one's priorities. So, work–life balance appears to be a relative matter. The struggle originates from elements within one's life that can be classified as biological, psychological, spiritual, and social. The reflective understanding, prioritization, and integration of these areas will determine whether or not a work–life balance can be achieved. This construct has made it a little easier for me to reflect, assess my own work–life balance, and welcome the idea that a work–life balance has great appeal but is almost impossible based on today's work context and expectations.

Before the struggle to achieve work–life balance begins, there needs to be a life transition to recognizing the importance of work–life balance. Many of us grew up with an idealized notion of what it meant to be a physician. Our role models (whether they were family, friends, or other professionals) and other environmental exposures that may have been related to the media and entertainment have shaped our idealized notion of what it means to be a physician. We are also shaped by the society's expectation of what it means to be a physician and what we must do. There is overlap in the context of theses exposures, but, in the end, it creates a unified picture or template in our mind about how we should be as a physician. I enjoyed watching television shows, such as *St. Elsewhere*, *ER*, and *House*. I witnessed the lives and interactions of real physicians in medicine, related to me or not. I saw evidence of the society's expectations of physicians by scrutiny in the news and legal cases. While everyone generates their own, personalized picture of what a physician is, the image that was created in my mind was one of an individual who was extremely compassionate, dedicated to their work, shouldered a tremendous responsibility to heal people, and made *no* mistakes. For me, these attributes were only reinforced by my medical training with hours of studying, pressure to do well academically, pressure to perform well clinically, and the expected dedication to the field in the form of clinical, research, teaching, and administrative responsibilities. The rigors of pediatric residency and a critical care fellowship did little to change my course in development and only encouraged the idea of work, work, and work. Nevertheless, training in pediatrics did lend itself to a softer and more tempered training environment than I witnessed in other areas of medicine. Dealing with children in medicine, in my perception, tends to attract a certain type of person, because it is

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difficult to work with children if you are not patient and able to act like a kid yourself sometimes. Regardless of the softer and more tempered training environment, the pressure to be an amazing physician is amplified by a child's life riding on the line and a parent's expectation to protect their child from harm. This varies with the acuity of illness, but I believe that it is a more prevalent dynamic in the field of pediatric critical care. The foundation of these feelings can be traced to not only how you perceive yourself and how others perceive you, but also how you perceive your role and how others perceive your role. Understanding this takes a great deal of self-reflection, self-awareness, and introspection that comes with maturity, experience, and letting go of one's ego. This paper reflects my own self-reflection and introspection. I believe that people reach the ability to contemplate these issues at different points in their lives and I can say with certainty that I could not have written this paper 10 years ago. As I began to appreciate the biological, psychological, spiritual, and social elements of my life, I became more aware of their importance and that forced me to prioritize them in relation to being a physician. Once that happened, my struggle began.

As a medical community, we know from studies that one's overall health and well-being is affected by one's physical health, mental health, belief system, and how one interacts with other human beings or integrates into society. These are avenues to either the benefit of one's well-being or its deterioration. The Dalai Lama said, "In dealing with those who are undergoing great suffering, if you feel "burnout" setting in, it is best, for the sake of everyone, to withdraw and restore yourself. The point is to have a long-term perspective." Physicians are not immune to illness, social isolation, depression, and other effects of lack of work–life balance. How often have we heard of physicians' physical health being affected by the stress of work? How often have we heard of physicians getting divorced or committing suicide? The biological, psychological, spiritual, and social elements integrated into one's life play an important role in one's overall health (1–3). So, why should physicians in critical care be any different? The quote by Benjamin Franklin, "When the well's dry, we know the worth of water," seems especially apropos.

Despite us knowing the benefits of a balanced life, our society has created catalysts to unbalance our life. Part of the problem of work–life balance, in this day and age, is that technology has expanded ever so quickly that our lives are connected 24 h per day, 7 days per week. We live in a world that has created ways to do things faster, obtain information quicker, and stay connected continuously. There are very few people in developed countries who do not have a computer, handheld electronic device, smartphone or other method of communication, or way to perform work outside of the confines of their office, keeping them tethered to their work. This is not unique to medicine. The line between work and life is blurred. Work weaves into life and life weaves into work, such as checking work emails diligently on one's smartphone at home and staying connected with friends outside of work through social media while one is at work (4, 5). We get distracted at work by our social media, phone calls, and personal emails and distracted at home by our work emails, project deadlines, and the ability to meet virtually from almost anywhere *via* FaceTime, Skype, Go-To-Meeting, or any other mode of visual communication. I have attended work meetings from home *via* FaceTime and I have seen my family from work *via* FaceTime. There is very little separation between one's work and life these days. Some would go as far to say that there is no such thing as work–life balance in today's world. Nevertheless, I have to believe that a work–life balance can exist because the prospect of having only to look forward to working makes for a very empty future.

In this day and age, I believe that identifying work–life balance is a personal journey, but work can possibly help as well. When I was growing up, my father worked hard and would have long work days, but when he was home … he was home. And, I did not think of him as the dentist that he was. He was just my father. As a father myself, I feel that my children know me as a physician and see me working at home … on the phone, checking emails, and working on the computer. I have tried to make more of a separation, but it is difficult. It goes back to how I perceive myself and my role, not only as a physician but also as a husband, father, son, etc., and how others perceive my roles and me. I feel the expectation to be at the top of my game clinically, be productive academically, and be an amazing teacher. While these things are measured at work, I place the importance on them. The importance of these work expectations conflict with life outside of work expectations because they both take time and investment of energy. One cannot pour time and energy into one thing without taking away from the other. Am I a physician first or am I a father/son/husband/friend/member of the community first? Do I take care of others or do I take care of myself? Do I believe in integrating various elements into my life or do I commit myself solely to medicine? Only I can answer these questions. But, in the end, if I do want to live in both worlds with some success in each, I do need to find a balance. How I strike that balance is up to me, and I can imagine that there is no universal way to accomplish this, so each person needs to find what works for him or her. Our work also provides an opportunity to help us balance. While employment laws dictate that employees take breaks during work, this is not always practical in the pediatric ICU. The ICU environment can be a vortex of non-stop activity and demands. So, a culture of putting an emphasis on "down time" must be encouraged.

There is a billion dollar industry focused on self-improvement, leadership, and work culture with books, videos, podcasts, seminars, and many other mediums to spur improvements in one's life and work, not to mention the advice of family, friends, acquaintances, impartial observers, therapists, and complete strangers writing articles about work–life balance. One should start at the beginning. As I mentioned, it is one's priorities that dictate what should be done. This is determined by what one values and what one's mission in life and work is. That is to say, "Why do I do the things that I do?" After that, one should envision where he or she wants to be … in 5 years, 10 years, etc. This sounds so familiar because we all have to assess these questions about where we want to be in 5 or 10 years with our work life, but not as often in our life outside of work. If one wants to find balance, these 5- and 10-year plans should include your multidimensional life and not just the one-dimensional work life and work. Once you realize where you are and where you want to end up in life, filling in the details and strategies is really an individualized journey.

So, back to the question, "Is work–life balance possible?" Work–life balance takes a concerted effort and work, not only in one's personal life but also in one's work life. Furthermore, work–life balance requires looking at oneself, critically, while assessing one's life priorities, shedding perceptions/expectations, and giving oneself permission to seek balance and live a balanced life. As we go through our journey of life, our priorities may shift or even change, and how we balance work and life may shift or even change as well (6). Ultimately, with the self-reflection and desire to make an effort to balance one's life, I believe that work–life balance is achievable.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and approved it for publication.

REFERENCES

1. Hassmen P, Koivula N, Uutela A. Physical exercise and psychological well-being: a population study in Finland. *Prev Med* (2000) **30**(1):17–25. doi:10.1006/pmed.1999.0597
2. Seybold KS, Hill PC. The role of religion and spirituality in mental and physical health. *Curr Direct Psychol Sci* (2001) **10**(1):21–4. doi:10.1111/1467-8721.00106
3. Thoits PA. Mechanisms linking social ties and support to physical and mental health. *J Health Soc Behav* (2011) **52**(2):145–61. doi:10.1177/0022146510395592
4. Derks D, van Duin D, Tims D, Bakker AB. Smartphone use and work-home interference: the moderating role of social norms and employee work engagement. *J Occup Org Psychol* (2015) **88**:155–77. doi:10.1111/joop.12083
5. Chen A, Karahanna E. Boundaryless technology: understanding the effects of technology-mediated interruptions across the boundaries between work and personal life. *AIS Trans Hum Comput Interact* (2014) **6**(2):16–36.
6. Miller BJ. *BJ Miller: What Really Matters at the End of Life [Video file]*. (2015). Available from: https://www.ted.com/talks/bj_miller_what_really_matters_at_the_end_of_life?language=en

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Who Is Responsible for Work–Life Balance?

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Keywords: work–life balance, maternity leave, working mother, day care, gender inequality

The problem with the concept of work–life balance is that most of the onus of achieving such clarity and satisfaction is left to the employee. As a pediatric intensivist and mother of two, I am ruled by the demands and requirements imposed both by my employer and academic position and by my beautiful children. It is the culture around and perception of working mothers that needs to change – both at work and in life. This would finally allow women to find balance and promote their success in all aspects of their lives.

It seems every day there are new articles, blogs, and reports, you name it, which discuss work–life balance. Everyone has their "secrets" on how you too can achieve the perfect distribution of time, effort, and success between work and life. A quick Internet search will tell you to "Drop activities that sap your time and energy!", "Rethink your errands!" (1), "Leave work at work!" (2), or, my favorite, "Rethink your idea of clean!" (3). Yes, a messy house is just the thing that will make me feel more balanced. Of course, there are small things each of us can do to prioritize the things that are important to us, but in order for us all, particularly working mothers, to find this elusive "balance" in our lives, it is our work environment and culture around work and life that needs to change.

There are many aspects of the general work environment in the United States that do not support the working mother. The sad state of maternity leave in this country is one of the clearest examples of how poorly we support women trying to balance work and family. The United States currently ranks 20th out of the 21 high income countries in terms of the length of protected maternity leave at only 12 weeks and, along with Oman, is one of the only two countries that does not provide paid maternity leave (4). Of course, there are exceptions in this country: Netflix recently announced it would offer unlimited paid maternity leave to its employees, but only those on its digital side, not the lower paid, more easy to replace line workers (5). Unfortunately, this minimalist approach to maternity leave and pregnancy does not stop with employee policies. One of my colleagues, a neonatologist, planned an all too brief maternity leave, but was asked 2 weeks in when she would be returning from "vacation." Or what about the fact that our own ruling board, The American Board of Pediatrics, would not let me take the critical care board exam locally when I was 39 weeks pregnant? They insisted the pregnancy was not a disability and I would have to travel hundreds of miles away to take my exam endangering myself and my unborn daughter.

The return to work is not all that welcoming either. Exhausted, emotional and forced back to work too early, many women long to continue breastfeeding, but we find ourselves hidden in dirty bathrooms pumping in secrecy since pump rooms are not always made available for employees. Returning to work also requires finding an affordable, high quality, loving environment for the new little one who, if we were kangaroos, would not even have left the pouch yet. Finding this type of care, whether it be daycare or nanny care, is quite challenging. The cost of high quality child care is astronomical in this country and infant care is even more expensive and difficult to find. I am incredibly fortunate to have phenomenal care for my children on the campus which I work, but I could pay in-state tuition for three children here at UCLA for the same price I pay for daycare for two.

In addition to the logistical difficulty of coming back to work, most women face questions and opinions regarding their ability to commit to both work and family. In a study where fake resumes

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that differed only by the sex and parental status of the applicant were evaluated, women with children were seen as less competent than women without children, though men with children were seen as equally competent and more warm than men without children. These assessments led to less interest in hiring, promoting, and educating working mothers when compared to working fathers or employees without children (6). In a similar study using fake resumes in a "laboratory" setting as well as sending fake resumes to actual potential employers, mothers were rated as less competent and less committed than non-mothers, but fathers were actually seen as being more committed and were offered higher starting salaries than non-fathers (7). This aptly named phenomenon, the "Motherhood penalty" is supported by countless other studies and has been documented in many countries outside of the United States. Women face increasingly negative perceptions about their commitment and ability as they have more children, whereas men are seen in a more positive light as their family grows.

Mothers need to be supported better at work. The United States used to rank seventh in terms of the proportion of women in the workplace, but we have recently dropped to 20th, just behind Japan. The disappearance of women from the work force has the potential of reducing family standards of living and negatively affects the economy. In addition, there is mounting evidence that having a working mother has economic, educational, and social benefits for children of both sexes (8). A recent study by Kathleen McGinn from Harvard Business School showed that daughters of working mothers were more likely to be employed, had higher incomes, and were more likely to have supervisory positions than daughters of non-working mothers (9).

As a start, we need to have comprehensive policies to better support maternity leave and breastfeeding at work. Large employers should consider providing on-site daycare that is affordable and convenient. These efforts along with other initiatives to encourage work–life balance have been shown to benefit not only the employee, but the employer as well. Organizations with strong, well-established work policies demonstrate higher organizational performance, market performance, and profit-sales growth (10) and employees of such organizations have higher job satisfaction, are more likely to stay at their job and have greater pride in their organization (11).

Employer efforts would go a long way to change the perception of working mothers by recognizing the challenges of balancing work and family and having policies in place to support them. However, this likely would not be enough. Women (and men) who find themselves in leadership roles need to take advantage of their position to support other women, particularly working mothers. One study of a large law firm showed that female attorneys were more likely to be promoted and stay at the law firm if they had female partners as mentors and role models (12). Leaders should be mindful of how organizing meetings and committees may put more stress on working mothers by scheduling meetings, for example, at 7:00 a.m. or 6:00 p.m. I was once invited to join the "Women in Science" Committee in a discussion of the challenges of women in academic medicine, but the meeting was scheduled from 5:00 p.m. to 7:00 p.m. This forces working mothers to make difficult choices and to limit their involvement in committees or meetings that may be meaningful for their careers. It also forces them to make excuses as to why they cannot participate, which is often negatively perceived. As a working mother oncologist has quoted saying, "Women need to stop apologizing for wanting and needing to be with their kids in addition to fulfilling their careers and playing a role in society" (13).

AUTHOR CONTRIBUTIONS

MF wrote this opinion piece in its entirety.

REFERENCES

1. Uscher J. *5 Tips for Better Work-Life Balance* (2011). Available from: http://www.webmd.com/women/features/balance-life?page=1
2. Jeffries S. *Ten Tips for a Better Work-Life Balance* (2014). Available from: http://www.theguardian.com/lifeandstyle/2014/nov/07/ten-tips-for-a-better-work-life-balance
3. Smith J. *8 Ways to Achieve Better Work-Life Balance* (2013). Available from: http://www.forbes.com/sites/jacquelynsmith/2013/04/18/8-ways-to-achieve-better-work-life-balance/#2715e4857a0b1cdc41463a25
4. Gornick J, Ray R, Schmitt J. *Parental Leave in 21 Countries: Assessing Generosity and Gender Equality*. Center for Economic and Policy Research (2008).
5. DePillis L. *What Netflix's New Maternity Leave Policy Doesn't Tell Us About Inequality* (2015). Available from: https://www.washingtonpost.com/news/wonk/wp/2015/09/01/netflixs-much-criticized-maternity-leave-policy-is-actually-pretty-rare/
6. Cuddy A, Fiske S. When professionals become mothers, warmth doesn't cut the ice. *J Soc Issues* (2004) **60**(4):701–18. doi:10.1111/j.0022-4537.2004.00381.x
7. Correll S, Bernard S, Paik I. Getting a job: is there a motherhood penalty? *Am J Sociol* (2007) **112**:1297–338. doi:10.1086/511799
8. Miller CC. *Mounting Evidence of Advantages for Children of Working Mothers*. New York Times, May 15 (2015).
9. Nobel C. *Kids Benefit from Having a Working Mom* (2015). Available from: http://hbswk.hbs.edu/item/kids-benefit-from-having-a-working-mom
10. Perry-Smith J, Blum T. Work-family human resource bundles and perceived organizational performance. *Acad Manag J* (2000) **43**(6):1107–17. doi:10.2307/1556339
11. Kenexa Research Institute. *Work Trends Survey* (2007). Available from: www.hr.com
12. McGinn KL, Milkman KL. Looking up and looking out: career mobility effects of demographic similarity among professionals. *Org Sci* (2013) **24**(4):1041–90. doi:10.1287/orsc.1120.0778
13. Belkin L. *Should Women Be Doctors?* New York Times, June 13 (2011).

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Work–Life Balance Does Not Mean an Equal Balance

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Keywords: work, life balance, gender differences, leadership, medical marriage

As I reflect on the different phases of my life as a physician, wife, mother, and physician leader, I realize that my expectations or definition of work–life balance have varied. I might even dare to say that my expectations vary on a daily basis. The concepts that remain at the crux of what I consider most important are a feeling of daily achievement and joy in each of my four life quadrants. These consist of Career, Family, Friends, and Self. At each stage of my life, I have challenged myself with changes that could potentially have caused an imbalance but instead increased my sense of self achievement and enjoyment. Literature has shown that female leadership in medicine is still disproportionately small which might be due to the barriers of combining work and family (1, 2). Compared with the early 1950s, today the number of women and men who successfully finish medical school is approximately equal. Despite this, a publication by Non-nemaker in the New England Journal of Medicine in 2000 showed that women who enter academic medicine have been less likely than men to be promoted or to serve in leadership positions (3). Some of the individual barriers to career development include the sporadic focus on career advancement, time-consuming child care, family responsibilities, and a woman's tendency toward understatement. Despite these barriers, work–family enrichment has been shown to have a positive spillover effect that spreads positive energy and helps to balance the work–life relationship (4). My communication, teamwork, and leadership skills influence my work and home environments in a positive way. Within my marriage, there is a mutual support that we both rely on as well as recognition of the important role each member plays. If asked, what would we say our strategies for success are in a two career family? First, having a set time for synchronizing schedules; second, frequent verbal support; and third, shared decision making (5). Other strategies that have been reported to play an important role in the medical marriage include defining and recognizing the important roles of each family member (6). For example, determining who does certain chores pays the bills or carpools, it is important to have clarity of our own and our partner's responsibilities. Having shared values with a spouse/partner really defines the foundation of a marriage/relationship and serves as a frame of reference when competing commitments arise or when faced with challenges and difficult issues.

Family life in the United States has changed. A recent survey reported that most dual-earning families include a parent working long hours at atypical times (7). Academic medicine can develop so that it supports family life and retains women, but there are several steps that must be taken. First, we must have realistic expectations of what one can accomplish in a day. For me, family time is valuable and my daughter and spouse are not a hindrance or burden to academic or clinical medicine, they are what grounds me in the real world. Second, we need to foster the right kind of mentoring. A mentor should be one who appreciates the things that make our lives work. Third, we need to develop collaborative links between women to support and learn from each other through coaching and networking. Most barriers to career progression are shared. We are not alone in feeling undervalued and overwhelmed.

The Institute of Medicine's landmark publication, "Beyond Bias and Barriers: fulfilling the potential of Women in Academic Science and Engineering," explored why women are underrepresented in academic medicine (8). Their conclusion was that women's underrepresentation

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was due to a steady attrition of women throughout their careers rather than a shortage of women entering these fields. Data from AAMC benchmarking surveys indicate that a number of medical schools already have programs that support the professional development of female faculty, but the nature of such support varies substantially (9). Successful programs should provide an inclusive and supportive climate and unique opportunities for female faculty to network, interact, and collaborate with each other.

Lastly, coming to the realization that work–life balance does not mean an equal balance will make life more realistic and rewarding. We should not have to place our different roles at odds with each other competing for time. Instead of desiring work/life balance perhaps one should seek inner happiness.

This instead should be our measure of success.

AUTHOR CONTRIBUTIONS

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REFERENCES

1. Shambaugh R. *It's Not a Glass Ceiling, It's a Sticky Floor: Free Yourself from the Hidden Behaviours Sabotaging your Career Success*. New York, NY: McGraw-Hill (2008).
2. Wietsma A. Barriers to success for female physicians in academic medicine. *J Community Hosp Intern Med Perspect* (2014) 4:246–65.
3. Nonnemaker L. Women physicians in academic medicine: new insights from cohort studies. *N Engl J Med* (2000) **342**:399–405. doi:10.1056/NEJM200002103420606
4. Scheller-Wedekamm C, Kautsky-Willer A. Challenges of work-life balance for women/physicians/mothers working in leadership positions. *Gend Med* (2012) **9**(4):244–50. doi:10.1016/j.genm.2012.04.002
5. Isaac C, Petrashek K, Steiner M, Manwell L, Byars-Winston A, Cranes M. Males spouses of women physicians: communication, compromise and carving out time. *Qual Rep* (2013) **18**:1–12.
6. Perlman R, Ross P, Lypson M. Understanding the medical marriage: physicians and their partners share strategies for success. *Acad Med* (2015) **90**(1):63–8. doi:10.1097/ACM.0000000000000449
7. Murphy EA. *A Vocation to Academic Medicine*. (1987). Available from: http://www.theway.org.uk/back/s060Murphy
8. Institute of Medicine, National Academy of Sciences, National Academy of Engineering. *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*. Washington, DC: National Academies Press (2007).
9. Joliff L, Leadley J, Coakley E, Sloane RA. *Women in U.S. Academic Medicine and Science Statistics and Benchmarking Report 2011–12*. Washington, DC: Association of American Medicine Colleges (2012).

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Work–life balance is an illusion: replace guilt with acceptance

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Keywords: parenting, burn out, pediatric, critical care, workload, stress, psychological

We walk with the ghosts of our patients every day of our lives. We chose critical care medicine because we love our work and are honored by the opportunity families give us to enter their lives when they are most vulnerable. We cannot develop these deep relationships that involve life and death then pretend those emotions and family stories do not enter our home lives. My work is my life and my life is my work. The concept of needing a balance between the two ignores that the fluid lines between work and life are frequently blurred.

When I see an ill child who shares a trait with one of my children, such as same age, hair color, smile, or sassiness, I have unintentionally allowed my life to enter my work realm. Similarly, while I am on vacation at the beach and subconsciously survey the scene to detect who looks ill and play out exactly how I would resuscitate that red lobster of a man, work has infiltrated my life.

I was riddled with grief and remorse while on maternity leave with my first child when I wrote and submitted my first NIH grant. I read articles on my smart phone while feeding. I did not nap when the baby napped as the mantra demands. I napped when I hit a writer's block. I awoke at 02:00 a.m. while the baby was still asleep because I was motivated by an idea that entered my sensorium and I needed to sketch it out. I fielded questions from fellows seeking advice on their job search. I approved institutional review board submissions, phoned-in to research mentorship meetings, and submitted abstracts to national conferences. I also spent countless hours staring into the eyes of the child we created. When I returned to work, I was energized and felt rested, yet the constant chatter from my colleagues included statements judging my ability to have enjoyed my maternity leave. I must not have bonded with my child. How could my work–life balance be so off?

During my second maternity leave 2 years later, I made a promise to protect this valuable, precious time and to savor these magical moments. I disabled work email from my smart phone. I canceled all work-related meetings and slept. I did not submit any abstracts, manuscripts, or grants. The only articles I read were from the New York Times. My computer battery died unrecognized by me for weeks. I took that little girl everywhere and filled my day completely with child-centric activities. When I returned to work I was energized and rested. I was still immersed in guilt despite following the rules of maternity leave to a tee. This time guilt and overwhelming doom arose from the mountain of tasks ahead of me. It took three full days to manage emails and re-establish regularly scheduled meetings. There were no lectures scheduled, no new research protocols to activate and I was swamped by clinical commitments. I returned home exhausted with limited capacity to be an active parent. My work–life had swung completely into chaos. I asked again, how could my work–life balance be so off?

Two years later, I enjoyed the birth of my third child. I made no promises to myself. I put no restrictions on what I could and could not do while on maternity leave. I allowed myself to just be. I wrote when motivated, slept when tired, and parented when it seemed fitting. My days were fluid, unencumbered, productive, and loving. When I returned to work, I was energized and rested and guilt-free.

As intensivists, we make hundreds of decisions daily (1) and I would venture to guess that most decisions are good ones. Finding the key to work–life balance for me was having trust in my skills

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as an intensivist; acknowledging that these decision-making skills guide me in all my life decisions. I mostly make good decisions when deciding how best to spend my time. The most efficient and meaningful way to spend my time is to combine all aspects of my life and let them ebb and flow as naturally indicated.

As a woman in academic medicine, the burden to fulfill parental and work obligations is heightened. According to the Association of American Medical Colleges (AAMC), despite women comprising 47% of medical school classes, women make up 38% of full-time faculty, 21% full professors, and 15% of department chairs (2). This "leaky pipeline" adds an additional layer of external pressure put on women in academia to excel. It also can lead to a sense of isolation as women ascend the academic ladder often alone, even more so if she is an under-represented ethnic minority (3). The internal pressure to be an actively engaged mother can be equally crippling, especially in a field dominated by men who may not have the same pressures to perform at home. Even as women have increased their presence in the workforce, they continue to shoulder greater responsibilities at home (4).

I realized it was meaningless to separate work and life. Once we admit this reality to ourselves, we will relieve ourselves of the burden of fighting the internal battle (5). We will remove the guilt we feel when we check the clinical census while on vacation or create the kid's activity schedule when we had committed to review that manuscript. We are successful physicians because we make good decisions and ultimately do what is needed. I am in balance because my work and life do not compete with each other, they are synergistic. Writing that grant while on my first maternity leave gave me the motivation and the drive to dive into work when I returned. Accomplishing something while I was supposed to hit the pause button on my career, made my life better. Spending uninterrupted time with my middle child is what I needed to know that quality, not quantity matters most to me. My family knows that when I am on clinical service they share mommy with other families. They also know that when I am off service they share mommy with research. My work colleagues know that when I take a mental health day, work commitments are marginalized. I frequently rely on my work skills as an intensivist to teach my children values of sharing, compassion, service, and responsibility. I also depend on my parenting skills of time management, negotiation, infusing laughter into everything I do, and the art of communication to improve the way I care for patients.

My work–life balance is not off. I am a better intensivist because of the joy my life brings to my work and I am a better parent because of the joy my work brings to my life. Every day when I come home to my children, especially after days when I was not able to give that gift to other parents, I appreciate my life more. Critical care medicine allows us to really, truly appreciate life as we often face death. This gift cannot be replicated in every profession. Critical care physicians should lead the field of medicine by shedding the burdens and embracing the reality of our work. I have accepted that the modern career physician does a disservice to the profession and to society by striving for the all-too-elusive idyllic work–life balance. It is time to redirect that energy into infusing life into one's work. The next generation physician will have no other option than to be a clinician and researcher simultaneously. And of course, to prevent extinction, some of us will need to be parents too.

References

1. McKenzie MS, Auriemma CL, Olenik J, Cooney E, Gabler NB, Halpern SD. An observational study of decision making by medical intensivists. *Crit Care Med* (2015) **43**(8):1660–8. doi:10.1097/CCM.0000000000001084
2. *The State of Women in Academic Medicine: The Pipeline and Pathways to Leadership, 2013-2014*. Association of American Medical Colleges (AAMC) (2015). Available from: https://www.aamc.org/members/gwims/statistics/
3. *Current Status of the United States Physician Workforce, 2013-2014*. Association of American Medical Colleges (AAMC) (2015). Available from: http://aamcdiversityfactsandfigures.org/section-ii-current-status-of-us-physician-workforce/
4. Tennery A. More women are in the workforce – so why are they still doing so many chores? *Business Money, Time Magazine*, 28 June (2012). Available from: http://business.time.com/2012/06/28/more-women-are-in-the-workforce-so-why-are-we-still-doing-so-many-chores/
5. Garcia TT, Garcia PCR, Molon ME, Piva JP, Tasker RC, Branco RG. Prevalence of burnout in pediatric intensivists: an observational comparison with general pediatricians. *Pediatr Crit Care Med* (2014) **15**(8):e347–53. doi:10.1097/PCC.0000000000000218

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Work–Life Balance: How Can We Achieve It within the Work Environment?

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Keywords: work–life balance, academic medicine, work demands, personal approach, training

During more than 30 years since I enrolled into Medical School, I have had discussions around work–life balance with many friends, colleagues, and trainees. It appears to me that as I am getting older, I have these discussions more frequently, and also that more and more of my colleagues and trainees complain about a lack of work–life balance and are unhappy with the demands of the job on their daily lives. I am not sure if this subjective observation reflects changes in my work environment or if we as a society are changing attitudes toward work and life priorities, but we cannot find ways to alter our work demands to reflect these changes.

As is customary in "philosophical" texts, I was looking for quotes from famous people, which would support my personal approach to work–life balance. Since I am Greek, I was looking for quotes from ancient Greek philosophers, quotes we encounter often in our readings although very few of us, I suspect, have ever read the original documents. I could not find any quote that I could be certain that was reflecting the opinions expressed in the original document and then remembered a quote from a contemporary book I read, "This is antiquity's value; it could be used to sanction anything. … bring in a few words from the writings (those denoised sound bites) of a Greek whose bones are well-mineralized and you have put wheels on your stupidity" (1). To avoid sounding stupid, or misrepresenting the writings of ancient Greek philosophers, I will continue without any such sound bites, but I will discuss here my experiences from my formative years in Greece that I believe have played a large role in my decision not only to follow a career in academic medicine but also to develop my personal approach to work–life balance.

As a medical student at the Aristotelian University of Thessaloniki, Greece, I had the good fortune to do research with members of a small non-university-based, but with a very academic philosophy, research group within a specialty hospital in Greece. My interactions with the members of that group and my integration into the group had a significant influence in my personal and scientific growth. Many, if not most, of my mentors from that time are not active scientifically anymore, but I would be very happy if they saw this narrative and felt proud to have helped a young student find his way in science and in life.

The group was doing high-quality research with little resources and little external support. All members of the group were in that environment because they loved doing research and wanted to feed their curiosity through their studies. People worked very well together in an open and friendly work environment. What was very interesting was that the members of the group were not only friendly to each other but were friends and this attitude extended not only to people working within this small group but also to other people working within the same hospital. They were all people with families and friends outside the work place, but they also found the work environment enjoyable and rewarding and interactions with their colleagues as valuable as interactions with any other friends. My mentors and co-workers back then found the work environment so enjoyable that that they would willingly extend their day or come back to "live" in the work environment in the evenings. The people gathering almost daily included the director of the group, a number of senior members, medical and non-medical personnel affiliated with the hospital housing the group, and a number of

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trainees at all levels of training. During those evening gatherings at the work place, discussions ranged from science to culture to personal problems to issues that may not be appropriate to be discussed here.

In that environment, I learned to appreciate what science could offer and learned the importance of general knowledge and involvement with issues ranging from science to politics to the daily problems of the community to sports. Learned that you can discuss these issues in an open environment with people who want to hear and value your opinion and support you no matter how different is your opinion from that of the senior or influential members of the group. I also learned that you do not have to separate completely your life from your work, the work environment can offer much more than work satisfaction, can offer friends, and a place to have fun and even discuss your personal problems. I learned that working with "friends" and enjoying what you do helps you develop work–life balance by having work be large part of your life without consuming all your waking time. I believed back then, and still believe now, that those people had found an excellent way to attain work–life balance, and as a medical student, I thought that I would be very lucky if I could find myself working in such a place later in my life.

My tenure in that environment led to opportunities to become more involved with research during my subsequent training and had a major role in my decision to follow an academic career. Today I am a clinician scientist, a specialist in clinical immunology and allergy with a heavy research load. I am a researcher, I am a clinician, I am an educator with responsibilities for my graduate and postgraduate students, and lately, I am also an administrator with responsibilities for my division. My daily involvement with all these activities, activities that often require different skill sets and different approaches to problem solving, makes it sometimes difficult for me to know whether on a given day I was able to do anything productive at all and whether I was able to fulfill my role as a university professor. On those days, I try to re-evaluate my approaches and see how I can attain the work–life balance I saw in my mentors long time ago.

Poor work–life balance can have both physical and mental health consequences. Men and women reporting a poor work–life balance also report poor well-being, more sickness absences, and more health problems (2, 3) compared to people who experience better work–life balance. There has been a lot of discussion and many publications addressing the difficulty in achieving work–life balance in academic medicine. It appears to me that some of the barriers we face to achieve work–life balance may be different from that of other professions, and according to academic physicians themselves, some of these barriers are deeply rooted within our professional culture (4). First of all, we need to accommodate the demands of three jobs to fulfill our clinical, teaching, and research missions. In addition, our profession was for too long dominated by colleagues who considered anything less than complete focus on work demands inappropriate for a physician. It is encouraging that these attitudes are changing, and taking advantage of programs that may allow better work–life balance, such as flexible hours, working from home, or easier access to time off for personal issues, is not a stigma anymore. Academic institutions have also recently developed principles and structures to promote work–life integration for their academic faculty (5). In my institution, a Workload/Worklife task force established jointly by the University and the Association of Academic Staff in 2009 identified that two key actions were to "promote programs, processes, and resources to support staff in meeting challenges of work–life balance" and to "ensure the clarity of job expectations and the alignment of reward systems." Our University has subsequently established Health Promotion and WorkLife Services to develop workshops for the employees and templates to help individual departments to improve conditions. In addition, even in institutions where these principles and resources exist, I am not aware of convincing evidence that they have been successful.

Excessive work demands because of intensive or long working hours seem also to be a consistent predictor of poor work–life balance (6). In addition, conflicting demands and low level of control over workload can lead to increased stress-related morbidity and loss of balance in ones life. I believe that most, if not all, academic physicians have stressful jobs and experience long working hours, and I certainly have had this experience for the most part of my career. Stress and requirement for excessive time commitment is not explained by on call hours that I am lucky to have very few in my current job, but by hours required in order to fulfill all the roles of my job. However, I also believe we as academic physicians belong to a relatively privileged group. As an academic physician, I have quite a lot of control over the organization of my workday and the activities required for my job. Even the dreaded administrative load was not something that was imposed on my, but something I decided to do thinking that I could be of help for my colleagues and the University in general. As an academic physician, I do something that I like and I can usually do it in my own pace and using my own approaches, although reward depends on how effective I am on my job. This control over our work–life can be lost when demands for certain parts of our job accumulate, but I still believe that we are in a much better position than most other professions.

When I review short periods of my life, a week, a month, or at times even a whole semester, I often notice that there has been no work–life balance, usually for problems such as those described above. For example, when I am preparing to submit a new grant or I am approaching a deadline for a big review, I agreed to write or for a report required by my job (and by the way, I am always a last-minute person, I had to ask for quite a long extension to be able to submit this narrative), I may have to work 10 or more hours a day, 6 or 7 days a week. However, I always know that this is temporary. After I submit the grant, the manuscript, or the report, I am able to compensate for the time lost from my "life." I will take it easier for a few days, or at times, I may take a few days off and get immersed in other things I like to do, such as traveling or just walking around with my camera(s) in my hands taking pictures or just thinking.

I have to admit that I may not have good answers of how to achieve work–life balance. I know what work–life balance is for me, but as for teaching, my approach to others or helping my students getting a handle on it, I am not sure I am a great help. I always question whether it is possible to transmit your experience to your trainees or whether you can help them with your anecdotes. I have many of these anecdotes and give them

out freely to my trainees, even when they do not appear to appreciate them. I also try to show by example that there are ways to overcome the problems that work can impose on you, and that meaningful interactions with colleagues and friends at work and outside work are important for a sense of balance. One regret that I have is that I have not been able to fully reproduce the conditions that I experienced in the first lab I ever worked in Greece, which I believe would have been the best help I could have offered to my trainees and junior colleagues. I hope that the same way I found something useful in the "teachings," anecdotes, and examples of my mentors, they will also find something among all their interactions with me that can help them later in their career. However, in the end, I tell my students that they would have to develop their own personal approach to work–life balance.

AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and approved it for publication.

REFERENCES

1. Fisher T. *The Thought Gang*. New York: Scribner Paperback Fiction (1997). 227 p.
2. Lunau T, Bambra C, Eikemo TA, van der Wel KA, Dragano N. A balancing act? Work-life balance, health and well-being in European welfare states. *Eur J Public Health* (2014) **24**(3):422–7. doi:10.1093/eurpub/cku010
3. Antai D, Oke A, Braithwaite P, Anthony DS. A 'Balanced' life: work-life balance and sickness absence in four Nordic countries. *Int J Occup Environ Med* (2015) **6**(4):205–22.
4. Strong EA, De Castro R, Sambuco D, Stewart A, Ubel PA, Griffith KA, et al. Work-life balance in academic medicine: narratives of physician-researchers and their mentors. *J Gen Intern Med* (2013) **28**(12):1596–603. doi:10.1007/s11606-013-2521-2
5. Shanafelt TD, West CP, Poland GA, LaRusso NF, Menaker R, Bahn RS. Principles to promote physician satisfaction and work-life balance. *Minn Med* (2008) **91**(12):41–3.
6. Voydanoff P. Implications of work and community demands and resources for work-to-family conflict and facilitation. *J Occup Health Psychol* (2004) **9**(4):275–85. doi:10.1037/1076-8998.9.4.275

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OPINION
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Work–Life Balance: Striking the Right Chords for Harmony

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Keywords: work–life, burnout, professional, career satisfaction, women in science, work–family interference, pediatric intensive care, critical care

As a mother of two young children and a fellow in pediatric critical care, I was often asked the question: "how do you do it?" I certainly liked to think that I was balancing work and life appropriately. To be honest, more often than not there was simply no choice to be made about what the need of the hour was – the bare minimum at work and home accounted for every minute. When I took up additional research or childcare responsibilities, it translated into one thing: working even harder. Somehow, in addition to fulfilling the requirements of an academic fellowship, I managed to make time for doctors' appointments, preschool events, and birthday parties. I was doing enough, but it was not enough to make me satisfied.

There is no objective way to measure what constitutes a good work–life balance. It is probably safe to assume, though that most of us have experienced a significant period of conflict between work and family at some point in time. Garcia et al. (1) reported a burnout level as high as 71% among Brazilian pediatric intensivists. While these data may not be reflective of prevalence in other countries, a rate of burnout as high as 50% was reported by Fields et al. (2) 20 years ago too. Burnout represents the far end of the spectrum of a chronically disrupted work–life balance, and these numbers should serve as a clarion call to us.

The Maslach Burnout Inventory Scale (3) focuses on three major domains: emotional exhaustion, depersonalization, and a sense of low personal accomplishment. Intensivists have consistently scored high in all three areas (4). While the presence of emotional exhaustion in intensivists makes intuitive sense, the other two components demand pause for thought: how does being so directly involved in patient care and working so closely with other team members coexist with feelings of depersonalization? How does one reconcile feelings of low accomplishment with saving lives?

As intensive care providers, we like to be in control of every situation and to be proactive with our choices. We like to do it all and have it all, both at life and work. Just as anything less than perfect is unacceptable at work, so too settling for less than the best for our children and families will not do. In this pursuit of perfection, the inevitable victim is our personal time. As I went through training, the cumulative burden of the many moments when I lacked the flexibility of doing something that I really wanted to started adding up. As weeks and months of training started blurring together, I felt an experiential loss. It is said that life is in the details, and in the daily grind, I was missing out on the texture of things, the richness of context. Spending time with friends and loved ones serves more than a purely social purpose. Music and books help us to briefly step outside the reality of our own narrow existences. Perspective can only be gained from a distance. Amid death and suffering, we need to acknowledge our emotions and process them in a timely manner. When harnessed appropriately, these same emotions can enhance learning and situational memory. When I was talking to a concerned parent, but really thinking about the critically ill child in the next room, I could not shake the feeling that I was somehow short-changing the parent. I was too busy to know my patients on a personal level anymore. Lack of time to research clinical dilemmas as they occurred left me with a nagging sense of a job not completed, as well as worry that I was passing up optimal learning opportunities. Accrual of information can occur semi-automatically; active learning requires concerted study, a re-examination of all prior knowledge to reconcile with new evidence. Accordingly, treating

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patients per guidelines and protocols was easy; it was harder to have the force of conviction behind my decisions when I had not spent enough time thinking about them. Creativity, a requirement for cognitive growth, cannot be cultivated when time is broken down into bite-sized pieces. Sitting in the comfort of my home, sipping on a cup of coffee while I type this, I can rationalize that I was doing what was necessary and required of me. It was plenty. In the moment, however, I felt like I was running a marathon, when I really wanted to cover the distance by alternately sprinting and resting.

Thankfully, I had less control over my now 4-year-old son, who was innately better than me at seizing the moment and taking me along for the ride. If I was required to do nothing but serve as a cushion for a whole hour, I had no choice but to comply. We took walks together, baked cookies, rode the miniature train. I might have elected to do something more "high-yield" if I had the time to plan ahead – register for a gym class or swim lessons, set play dates. In retrospect, I am glad I did not; I dearly cherish the time spent with him.

Chittenden and Ritchie (5), in their excellent review, describe several strategies for achieving a good work–life balance. One of these is "timeshifting": the ability to really slow down and relax during downtime. This approach often requires a deliberate mindfulness of our thoughts and controlling the urge to work during periods set aside for rest. Setting goals and revisiting career plans with trusted mentors at regular intervals is worthwhile. It is crucial to devote time for reflection to enable incorporation of changing priorities and values into future goals, as life circumstances continue to change. Learning to live in the moment is something our children can teach us. Seeking feedback can help us uncover our own blind spots. Importantly for intensivists, being realistic with expectations and replacing self-criticism with positive change can go a long way.

Without a doubt, critical care medicine can be mentally, physically, and emotionally draining, but it can also be immensely rewarding. As intensivists, we are privileged to help families through what will probably be the most challenging time of their lives. We get to see the fruits of our labor in the here and now, when we successfully resuscitate a child or perform a lifesaving procedure. We are witness every day to the remarkable resilience of children and the grace with which parents bear their impossible burdens. We are looked upon as leaders of a large team. Yes, work hours are long, but time away from the unit is uninterrupted by consultations and clinics. Most importantly, we are doing what appeals most to us. Work itself is a large part of our identity, self-worth, and purpose in life. It is natural to see our own problems as trivial and neglect our own well-being. The biggest lesson I have learnt from my experience thus far is a simple one: "Make time to do what makes you happy."

When I reframed my goal to achieve a positive "work–life-self" balance, I become a better doctor and mother, and a happier person. The "self" had to be fitted in somehow, but I discovered how elastic time could be and that only real rest led to real productivity. It is fitting to end with these lines by Matthew Arnold, a reassurance that every effort counts to making us better physicians, whether or not we can see it as such at the time.

> "With aching hands and bleeding feet
> We dig and heap, lay stone on stone:
> We bear the burden and the heat
> Of the long day, and wish 'twere done.
> Not till the hours of light return,
> All we have done do we discern."

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KM was responsible for writing this opinion piece.

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REFERENCES

1. Garcia TT, Garcia PC, Molon ME, Piva JP, Tasker RC, Branco RG, et al. Prevalence of burnout in pediatric intensivists: an observational comparison with general pediatricians. *Pediatr Crit Care Med* (2014) **15**:e347–53. doi:10.1097/PCC.0000000000000218
2. Fields AI, Cuerdon TT, Brasseux CO, Getson PR, Thompson AE, Orlowski JP, et al. Physician burnout in pediatric critical care medicine. *Crit Care Med* (1995) **23**:1425–9. doi:10.1097/00003246-199508000-00018
3. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol* (2001) **52**:397–422. doi:10.1146/annurev.psych.52.1.397
4. Embriaco N, Azoulay E, Barrau K, Kentish N, Pochard F, Loundou A, et al. High level of burnout in intensivists: prevalence and associated factors. *Am J Respir Crit Care Med* (2007) **175**:686–92. doi:10.1164/rccm.200608-1184OC
5. Chittenden EH, Ritchie CS. Work-life balancing: challenges and strategies. *J Palliat Med* (2011) **14**:870–4. doi:10.1089/jpm.2011.0095

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EDITORIAL
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Editorial: Work–Life Balance: Essential or Ephemeral?

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Editorial on the Research Topic

Work–Life Balance: Essential or Ephemeral?

An overwhelming response followed my inaugural article in *Frontiers in Pediatric Critical Care* in 2014 titled "*The fallacy of chasing after work–life balance*" (Schwingshackl). My article revealed the perspective of a young clinician-scientist trying to stay afloat between the responsibilities of a busy pediatric ICU service and a nascent basic science research career. While most professionals in academic medicine adhere to the notion that achieving a work–life balance is integral to the recipe for academic success, I challenged the usefulness and necessity of the work–life balance paradigm in modern medicine. I argued that creating a dichotomy between work and life leads down a self-destructive path filled with frustration and disappointment toward both "work" and "life." In contrast, integration rather than separation of the time spent at work and with life may create a much more positive and constructive attitude toward both of these entities.

This provocative viewpoint sparked a remarkable debate and stirred up a plethora of emotions in MDs/DOs (Lin; Figueroa; Epstein; Kimura) and PhDs (You; Roan; Saravia and Saravia), including students, residents (Garros; Vargas; Fernandez Nievas and Thaver), fellows (Purdie; Alleyne), and faculty (Federman; Morparia; Shenoi), from all flavors of medicine and across the spectra of careers and life stages. Importantly, this is the first project that dissects this controversy not only by collecting the opinions of academic employees themselves but also the perceived views of their spouses and life partners (Saravia and Saravia) and in the context of mentor–mentee relationships (Fernandez Nievas and Thaver). Given the resonance of this topic in the academic community, this debate evolved into a Research Topic, allowing the expression of wide-ranging ideas, perspectives, personal testimonies, and coping strategies.

In this Research Topic, 26 authors contributed a total of 22 manuscripts, addressing for the first time the controversy of work–life balance from a 360° viewpoint. At its core, it highlights that all academic employees struggle with this concept in one way or another. During our careers, we have developed a wide range of coping strategies to deal with this issue. Some authors aim at resolving this conflict on a more small-scale and immediate, daily basis (Garros; Kong), whereas others adopt more long-term coping mechanisms, including frequent reassessments, and shy away from focusing too deeply on small ups and downs in a daily workday (Saini) Some authors prefer to digest this conflict first at philosophical and moral levels before implementing daily, practical strategies (Lin; Epstein). Others promote the concept that a strictly balanced work–life balance is unlikely achievable in our modern lives, whereas instead acceptance of a healthy work–life imbalance, in conjunction with a rearrangement of priorities, can realistically lead to satisfaction and happiness (Figueroa; Shenoi; Tarquinio). Along those lines, some authors point out that work–life balance for physician-scientists could be easier achievable if we rated ourselves on our own scale rather than those adopted from the business world, which inherently poorly reflect the nature of the conflicts that physicians struggle with (Fernandez Nievas and Thaver). Taking this controversy

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to another level, some authors remind us of the importance of realizing that work–life dissatisfaction not only manifests itself as an internal struggle but directly infiltrates our interactions with our families, friends, and others in our personal and professional circles (Kimura). In fact, it is well known that persistent work–life dissatisfaction can lead to burnout and depression among ICU physicians (1). Toward the extremes of the spectrum of possible approaches are authors who question the entire usefulness of the concept of work–life balance (You; Wang) or, like myself and others (Schwingshackl; Alleyne), reject the concept altogether and believe it is actually more harmful than useful to our serenity.

The ultimate goal of this Research Topic was to provide clinicians and clinician-scientists with a series of options of how to approach work–life balance in the world of modern academic medicine. Each manuscript shares personal experiences and commentaries on the pros and cons of a given approach and value system. Clearly, it is impossible to compile a one-approach-fits-all model for all clinicians. Nevertheless, each one of us can certainly relate to at least one of these approaches, recognize its benefits and downfalls, and gain new strength from adopting at least certain aspects of other portrayed strategies to fit our own specific needs.

Like many of us, we were inspired by the unprecedented increases in suicide and burnout rates among medical professionals (2–5), most likely caused by the gradual but consistent adaptation of characteristics and value systems typical for a business enterprise in modern medicine (6). Physician careers are increasingly driven by promotions and incentives (financial or otherwise) and are often viewed in light of achieving further promotions or access to additional perks or incentives (7–10). Furthermore, the increasing pressure of practicing cost-effective medicine, although essential for the sustainability of any health-care system, imposes ethical and moral stressors on physicians as it is often rewarded by further bonuses and incentives (11–14). Similarly, the implementation of business-derived productivity metrics to define a physician's value to an academic institution is gradually replacing any human, emotional, and intellectual values that a physician brings to the workplace (15–19). We are being conditioned to suppress the ambitions and desires that originally led us into medicine and replace them with skill sets that allow us to sell ourselves as profitable investments. We write grants on topics with the highest likelihood of being funded, not on the topics closest to our hearts. We prefer seeing patients with fewer comorbidities, rather than intellectually challenging patients who pose a diagnostic dilemma, because of their impact on our productivity. Aside from adopting business-like practices in medicine, policy makers, accreditation bodies, and insurance companies have over the past two decades also imposed an unprecedented number of practice guidelines, documentation rules, and a mandate to implement one version or another of an electronic medical record (EMR) system. These have created a culture of fear of medical–legal lawsuits among physicians encouraging them to generalize and delegate rather than individualize and take ownership of a patient's medical care. This in turn has negative effects on physicians' self-esteem and makes them feel underappreciated. Hasty implementation of EMR systems promoted inner conflicts in many physicians due the contradiction between their individual perspective that virtually all EMR versions are inefficient and impractical (20), and questionable data proposing improved efficiency, quality of care, and financial outcomes (21, 22). Interestingly, some studies report not even any improvements over time in physicians' satisfaction scores with EMR systems and point out serious deficiencies that hinder physicians' routine work (23). These "advances" in medicine have clearly fueled dissatisfaction and frustration levels throughout the whole medical profession to an all-time high and have vastly changed our daily practice patterns.

An entirely new stressor imposed on our medical community, one that no other generation in the history of medicine had to cope with, is the fundamental instability of our health-care system. Introduction of the Affordable Health Care Act ("Obamacare") in March 2010 certainly led to substantial anxiety among all practicing physicians about how it would affect our daily practice, workload, and personal lifestyle. However, not even 7 years later, our lives are upended once again with the transition to a new presidency that is promising not only to abolish the ACA but also, to date, has not proposed any alternative. We are currently facing higher than ever levels of anxiety and insecurity about the future of health care, the resources that allow us to practice standard-of-care medicine, and the ramifications on our compensation plans, all of which directly affect both our work and personal environments. No generation before ours had to face such a fundamental and existential uncertainty about the moral, ethical, and financial value of our profession and our personal value within the health-care system.

The recent shift in the mere definitions of both medicine and academic research suffocates our passions that originally inspired us to embark on the journey of helping sick children. These principles fuel inner conflicts that, in turn, we try to remedy with a work–life balance paradigm. Our Research Topic identified these conflicts as major stressors for modern clinician-scientists across all ages and life stages.

By now, the topic of work–life balance has clearly gained ample media coverage and public attention (24–28), which has increasingly led academic institutions to implement emotional support systems for physicians (29–32). Unfortunately, most of these approaches are once again copied from business corporation models and as long as resuscitating a sick child creates a completely different stressor profile than navigating through the ups and downs of the stock market, in reality these models provide little useful help for physicians. In fact, participating in such programs (or regular "MD wellness" surveys) often adds to our stress level rather than alleviating it. Widespread concerns also remain about the confidentiality and the stigma associated with mental health problems in physicians (33). The stigma of mental illness thrives in the medical profession as a result of the current health-care culture, the perceptions of physicians and their colleagues, as well as the regulatory burdens, expectations, and responses of health-care systems.

As a thought experiment, let us turn this model upside down and create a workplace where physician values are driven by purpose and initiative, both at work and in life. Once we recognize our purpose in both life and work, we can start defining the initiatives required to fulfill our inner purpose not only as physicians

but also as human beings. Satisfaction and tranquility will then derive from living a purpose-driven life at work and outside with our coworkers, families, and friends alike, and not from financial enrichments or accumulation of titles on our business cards and email signatures. While we agree that we cannot just chase romantic ideals of making the world a better place, we cannot abandon those ideals either and practice medicine solely based on productivity metrics, promotion criteria, and cost-effectiveness analyses.

Personally, we challenge and refute the concept of work–life balance as a useful construct and consider it harmful to our search for happiness and physical and spiritual well-being. Nevertheless, this Research Topic has revealed that for the large majority of physicians, regardless of gender, age, academic rank, or size of institution, the concept of work–life balance is very much alive, constantly present in their daily realities and forces them to deal with its definition and ramifications every step of the way. It also provided a forum to express the wide-ranging perspectives, ideas, and strategies used to achieve work–life balance by professionals practicing in academic and non-academic medical settings. Encapsulating all these in a readily accessible electronic booklet will reach a wider audience and potentially help those struggling with the diverse stressors of our current medical climate.

Unquestionably, the landscape of modern academic medicine is changing. While we, the currently active physician work force, can opt to accept or decline the usefulness of a work–life balance concept to find our serenity, the next generation of clinician-scientists will likely have to redefine the question of "*Work–Life Balance: Essential or Ephemeral?*" for themselves based on their own future work–life contexts.

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REFERENCES

1. Embriaco N, Hraiech S, Azoulay E, Baumstarck-Barrau K, Forel JM, Kentish-Barnes N, et al. Symptoms of depression in ICU physicians. *Ann Intensive Care* (2012) 2:34. doi:10.1186/2110-5820-2-34
2. Shanafelt TD, Hasan O, Dyrbye LN, Sinsky C, Satele D, Sloan J, 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) 90:1600–13. doi:10.1016/j.mayocp.2015.08.023
3. Gyorffy Z, Dweik D, Girasek E. Workload, mental health and burnout indicators among female physicians. *Hum Resour Health* (2016) 14:12. doi:10.1186/s12960-016-0108-9
4. Iannelli RJ, Finlayson AJ, Brown KP, Neufeld R, Gray R, Dietrich MS, et al. Suicidal behavior among physicians referred for fitness-for-duty evaluation. *Gen Hosp Psychiatry* (2014) 36:732–6. doi:10.1016/j.genhosppsych.2014.06.008
5. Dyrbye LN, West CP, Satele D, Boone S, Tan L, Sloan J, et al. Burnout among U.S. medical students, residents, and early career physicians relative to the general U.S. population. *Acad Med* (2014) 89:443–51. doi:10.1097/ACM.0000000000000134
6. Amabile TM, Kramer SJ. Inner work life: understanding the subtext of business performance. *Harv Bus Rev* (2007) 85(72–83):144.
7. Cohen AB, Sanders AE, Swain-Eng RJ, Gjorvad G, Tonn ST, Bever CT Jr, et al. Quality measures for neurologists: financial and practice implications. *Neurol Clin Pract* (2013) 3:44–51. doi:10.1212/CPJ.0b013e318283ff1c
8. Kirschner K, Braspenning J, Akkermans RP, Jacobs JE, Grol R. Assessment of a pay-for-performance program in primary care designed by target users. *Fam Pract* (2013) 30:161–71. doi:10.1093/fampra/cms055
9. Saint-Lary O, Plu I, Naiditch M. Ethical issues raised by the introduction of payment for performance in France. *J Med Ethics* (2012) 38:485–91. doi:10.1136/medethics-2011-100159
10. Duszak R Jr, Saunders WM. Medicare's physician quality reporting initiative: incentives, physician work, and perceived impact on patient care. *J Am Coll Radiol* (2010) 7:419–24. doi:10.1016/j.jacr.2009.12.011
11. Hakimoglu S, Hanci V, Karcioglu M, Tuzcu K, Davarci I, Kiraz HA, et al. Cost-conscious of anesthesia physicians: an awareness survey. *Pak J Med Sci* (2015) 31:1089–94. doi:10.12669/pjms.315.7520
12. Hayashida K, Imanaka Y. Inequity in the price of physician activity across surgical procedures. *Health Policy* (2005) 74:24–38. doi:10.1016/j.healthpol.2004.12.005
13. Ginsburg ME, Kravitz RL, Sandberg WA. A survey of physician attitudes and practices concerning cost-effectiveness in patient care. *West J Med* (2000) 173:390–4. doi:10.1136/ewjm.173.6.390
14. Awad N, Caputo FJ, Carpenter JP, Alexander JB, Trani JL, Lombardi JV. Relative value unit-based compensation incentivization in an academic vascular practice improves productivity with no early adverse impact on quality. *J Vasc Surg* (2017) 65(2):579–82. doi:10.1016/j.jvs.2015.11.014
15. Zhang C, Murata S, Murata M, Fuller CD, Thomas CR Jr, Choi M, et al. Factors associated with increased academic productivity among US academic radiation oncology faculty. *Pract Radiat Oncol* (2017) 7(1):e59–64. doi:10.1016/j.prro.2016.06.012
16. Lochner J, Trowbridge E, Kamnetz S, Pandhi N. Family physician clinical compensation in an academic environment: moving away from the relative value unit. *Fam Med* (2016) 48:459–66.
17. Ence AK, Cope SR, Holliday EB, Somerson JS. Publication productivity and experience: factors associated with academic rank among orthopaedic surgery faculty in the United States. *J Bone Joint Surg Am* (2016) 98:e41. doi:10.2106/JBJS.15.00757
18. Jamjoom AA, Wiggins AN, Loan JJ, Emelifeoneu J, Fouyas IP, Brennan PM. Academic productivity of neurosurgeons working in the United Kingdom: insights from the H-index and its variants. *World Neurosurg* (2016) 86:287–93. doi:10.1016/j.wneu.2015.09.041
19. Khullar D, Kocher R, Conway P, Rajkumar R. How 10 leading health systems pay their doctors. *Healthc (Amst)* (2015) 3:60–2. doi:10.1016/j.hjdsi.2014.11.004
20. Doberne JW, Redd T, Lattin D, Yackel TR, Eriksson CO, Mohan V, et al. Perspectives and uses of the electronic health record among US pediatricians: a national survey. *J Ambul Care Manage* (2017) 40:59–68. doi:10.1097/JAC.0000000000000167
21. Ham PB III, Anderton T, Gallaher R, Hyrman M, Simmerman E, Ramanathan A, et al. Development of electronic medical record-based rounds report results in improved resident efficiency, more time for direct patient care and education, and less resident duty hour violations. *Am Surg* (2016) 82:853–9.
22. AlHazme RH, Haque SS, Wiggin H, Rana AM. The impact of health information technologies on quality improvement methodologies' efficiency, throughput and financial outcomes: a retrospective observational study. *BMC Med Inform Decis Mak* (2016) 16:154. doi:10.1186/s12911-016-0395-z
23. Kaipio J, Laaveri T, Hypponen H, Vainiomaki S, Reponen J, Kushniruk A, et al. Usability problems do not heal by themselves: national survey on physicians' experiences with EHRs in Finland. *Int J Med Inform* (2017) 97:266–81. doi:10.1016/j.ijmedinf.2016.10.010

24. Ward S, Outram S. Medicine: in need of culture change. *Intern Med J* (2016) 46:112–6. doi:10.1111/imj.12954
25. Marmon LM, Heiss K. Improving surgeon wellness: the second victim syndrome and quality of care. *Semin Pediatr Surg* (2015) 24:315–8. doi:10.1053/j.sempedsurg.2015.08.011
26. Oskrochi Y, Maruthappu M, Henriksson M, Davies AH, Shalhoub J. Beyond the body: a systematic review of the nonphysical effects of a surgical career. *Surgery* (2016) 159:650–64. doi:10.1016/j.surg.2015.08.017
27. Gyorffy Z, Girasek E. Mental health of physicians – nationwide representative study from Hungary. *Ideggyogy Sz* (2015) 68:258–69. doi:10.18071/isz.68.0258
28. Brazeau CM, Shanafelt T, Durning SJ, Massie FS, Eacker A, Moutier C, et al. Distress among matriculating medical students relative to the general population. *Acad Med* (2014) 89:1520–5. doi:10.1097/ACM.0000000000000482
29. Boyatzis R, McKee A, Goleman D. Reawakening your passion for work. *Harv Bus Rev* (2002) 80(4):86–94.
30. Kossek EE, Hammer LB. Supervisor work/life training gets results. *Harv Bus Rev* (2008) 2008:36.
31. Ammendolia C, Cote P, Cancelliere C, Cassidy JD, Hartvigsen J, Boyle E, et al. Healthy and productive workers: using intervention mapping to design a workplace health promotion and wellness program to improve presenteeism. *BMC Public Health* (2016) 16:1190. doi:10.1186/s12889-016-3843-x
32. Taylor AW, Pilkington R, Montgomerie A, Feist H. The role of business size in assessing the uptake of health promoting workplace initiatives in Australia. *BMC Public Health* (2016) 16:353. doi:10.1186/s12889-016-3011-3
33. Wallace JE. Mental health and stigma in the medical profession. *Health (London)* (2012) 16:3–18. doi:10.1177/1363459310371080

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