

Thriving in Residency: a Qualitative Study

Joshua H. Hyman, BA¹  and Benjamin Doolittle, MD MDIV²



¹Yale University School of Medicine, 1074 LMP, New Haven, CT, USA; ²Internal Medicine & Pediatrics Residency Program, Yale University School of Medicine, New Haven, CT, USA.

BACKGROUND: While a great deal of research has brought attention to the issue of physician burnout in recent years, and resident physician burnout in particular, the topics of physician well-being, and by extension physician thriving, have been relatively understudied. Consequently, we propose a model of resident physician thriving.

Objective

To understand what factors contribute to a subjective sense of thriving among resident physicians.

DESIGN: In this study, we conducted in-depth interviews from May 2020 through February 2021 with resident physicians to determine what factors have contributed to their sense of thriving in their careers as well as in their lives more generally. We used a snowball sampling technique to recruit participants. Validated instruments were used to quantify the participant's subjective level of job and life satisfaction as well as their level of career burnout. To derive our conclusions, we employed thematic content analysis using a grounded theory-based approach.

PARTICIPANTS: Resident physicians in the internal medicine, pediatrics, and combined internal medicine-pediatrics residency programs at a single university-affiliated institution.

APPROACH: We interviewed those residents with high life, career, and residency satisfaction who did not meet criteria for burnout to explore those factors that contribute to their sense of thriving.

KEY RESULTS: Thirty-seven screening interviews were conducted. Twenty-four participants met criteria for life, career, and residency satisfaction while also not meeting criteria for burnout. The six key themes contributing to resident thriving that we identified during the course of our analysis included program leadership, learning climate, connectedness, joy in medicine, life balance, and intrinsic factors.

CONCLUSIONS: This project proposes a model of resident thriving that can potentially inform program structure, culture, and values.

KEY WORDS: Thriving; Residency; Medical Education.

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INTRODUCTION

While a great deal of research has brought attention to the issue of physician burnout in recent years, the topic of physician well-being has been relatively understudied. Professional burnout is a psychological syndrome characterized by emotional exhaustion, depersonalization, and a feeling of reduced personal accomplishment in one's work.¹ Many of the studies examining physician burnout have sought to highlight the scale of the problem, the association between demographic characteristics and rates of burnout among physicians, the disparate causes of burnout in medicine, and the consequences of burnout on both clinicians and patients, as well as the effectiveness of various system-level interventions that have been implemented to address this phenomenon.^{2–10} Moreover, a great number of studies have demonstrated that burnout is an especially notable problem among resident physicians, with a prevalence rate ranging from 27 to 75% depending on specialty.^{11–18}

Although the literature exploring burnout among physicians is relatively robust, our understanding of physician well-being is more limited. Despite research indicating that physician well-being is not simply the absence of burnout, the concept of physician well-being as a standalone metric is neither clearly defined nor comprehensively measured in the literature.^{19–24} Indeed, scholars have pointed out that the comparatively modest attention paid to the study of physician well-being stands as an obstacle to improving patient care.²⁵

While there exist several well-established conceptual models that aim to identify essential components of physician well-being, these frameworks do not explicitly examine those factors that contribute to a sense of thriving among physicians, a term we broadly define as a state existing at the pinnacle of well-being.^{26, 27} In our conceptualization, thriving is not simply synonymous with joy, happiness, or satisfaction, all of which are recognized as components of well-being.²⁸

The available literature on physician thriving remains sparse. A qualitative study among primary care attending physicians identified five domains associated with thriving: social connections, love of work, value-oriented practice, agency, and relationships with patients.²⁹ However, a similar qualitative study among resident physicians has not been conducted. Consequently, it is our aim to develop a conceptual model to better understand resident physician thriving and in so doing address this key gap in the research literature. Specifically, we propose using the Aristotelian concept of

eudaimonia, with added insights drawn from the positive psychology literature on flourishing, as a framework through which to analyze resident physician thriving.

In his treatise on Nicomachean ethics, Aristotle describes eudaimonia as a philosophy of life concerned with living virtuously and actively pursuing the actualization of one's human potential. Etymologically, eudaimonia is derived from the Greek words "eu" meaning "good," and "daimon," meaning "soul" or "self," and has been variably translated as "human flourishing," "fulfillment," and "living well." Aristotle's concept of eudaimonia proposes that a flourishing life incorporates both a subjective feeling of satisfaction as well as a value-oriented purpose.^{30, 31} Indeed, using eudaimonia as a framework to analyze physician well-being was affirmed in the qualitative study among primary care attendings described earlier.²⁹

Similarly, positive psychology focuses on the study of processes and conditions that contribute to individual, institutional, and societal well-being.³² Within the field of positive psychology, "flourishing" is viewed as a pinnacle state of well-being.³³ And while there are various theoretical formulations that each seek to define and delineate the features that constitute flourishing, what they share in common is an emphasis on well-being that goes beyond mere happiness and life satisfaction to include attributes such as relationships, virtues, meaning, and accomplishment.^{34, 35}

Taken together, eudaimonia and flourishing provide a comprehensive theoretical lens through which to study and better understand resident thriving.

METHODS

Setting, Participants, and Study Design

A qualitative methodology was chosen to provide insights into participants' attitudes, reflections, and perspectives on thriving in residency. Thematic analysis employing a grounded theory-based approach was used to allow investigators to identify naturally occurring themes.

In this study, we conducted in-depth interviews from May 2020 through February 2021 with resident physicians in the internal medicine, pediatrics, and combined internal medicine-pediatrics residency programs at a single university-affiliated institution to determine what factors have contributed to their sense of thriving in their careers as well as in their lives more generally. All interviews were conducted over a video Internet platform by the medical student researcher, with the contents of each interview being recorded. Consent was obtained from each participant prior to the start of the interview. Participation was voluntary. The recorded interviews were transcribed and anonymized exclusively by the medical student researcher. Thereafter, interview recordings were deleted.

Of note, we intentionally sought to interview residents who met criteria for thriving. We reasoned that by focusing on

these positive deviants as our study population, we could better describe common factors that thriving residents themselves believe contribute to their sense of thriving in residency. Our inclusion and exclusion criteria were based on validated instruments on burnout and satisfaction. As such, we defined a thriving resident as one who meets criteria for life, career, and residency satisfaction and who likewise did not meet criteria for burnout.

The first two participants we interviewed in this study were identified by program leadership as residents who appeared to be thriving. Thereafter, we used a snowball sampling technique whereby at the conclusion of each interview subjects were asked to identify additional thriving colleagues for us to contact for future interviews. New participants were then recruited by email. Of note, no specific criteria were given to program leadership or other participants on how to identify thriving residents for future interviews.

Participants' identities were kept confidential from program leadership. Subjects who agreed to participate in the study completed a demographic questionnaire and a series of validated instruments on burnout and satisfaction. All participants were screened immediately prior to their full interview. Specifically, we used a two-item version of the Maslach Burnout Inventory, which has been validated among resident physicians.³⁶⁻³⁸ Our Burnout Inventory includes the questions "How often do you feel burned out from work?" and "How often do you feel you have become more callous to people since you took on this job?" As validated in the literature, residents who responded "once a week" or more frequently on either item met criteria for burnout.³⁹

Participant satisfaction with life, career choice, and residency was determined by the questions "All things considered, how satisfied are you with your life in general?," "All things considered, how satisfied are you with your career choice?," and "All things considered, how satisfied are you with your job as a resident physician?" Subjects were asked to respond to an 11-point scale from 0 ("totally dissatisfied") to 10 ("totally satisfied"). Based on research showing that satisfaction ratings are normally distributed, interviewees were considered satisfied if they scored a 7 or higher across all three domains—corresponding with a satisfaction level approximately one standard deviation above the mean or greater.^{40, 41} Single-item instruments for measuring satisfaction have been validated and widely used in several multicultural settings among large population studies.⁴²

This qualitative study was approved by the Yale University Institutional Review Board (ID# 2000022828). Residency program leadership also gave permission for the project.

Interview Guide

A semi-structured interview guide that was developed in a prior study of physician thriving among primary care attendings was used (Appendix).²⁹ The questions were derived from a review of the literature on physician well-being

and focused on aspects of each participants' life and career which have contributed to a sense of thriving, including work environment, social networks, institutional supports, and intrinsic personal characteristics.^{27, 43}

Qualitative Analysis

To derive our conclusions, we employed thematic content analysis using a grounded theory-based approach. This process enabled us to identify naturally occurring themes from the data in an ongoing, iterative process that continued in parallel with further data collection. Both authors participated in the coding and analysis of the anonymized transcripts. Following the transcription and review of the first five interviews, we developed an initial code structure that was then applied to these early transcripts. With these preliminary thematic results as our starting foundation, we underwent a collaborative process of interview guide and thematic code revision, with new codes and subthemes being identified as we analyzed additional interview transcripts. Thematic saturation was reached at the 12th participant interview. After achieving thematic saturation, we interviewed an additional 25 subjects in order to explore the possibility that previously undiscovered themes might be uncovered as well as to increase the robustness of our sample. All subjects who met criteria were included in the analysis. Final codes were then related to each other through axial coding, in which subthemes were discovered and discrepancies among the codes and subthemes were discussed between the investigators until consensus was attained. All transcripts were coded using password-protected software.

RESULTS

We completed interviews with 37 resident physicians across the internal medicine (IM), pediatrics (P), and combined internal medicine-pediatrics (MP) residency programs. Of the 37 residents interviewed, 24 participants met inclusion criteria for satisfaction with life, career, and residency while also not meeting exclusion criteria for burnout and were subsequently included in our study (Table 1). Through our analysis, we identified six key themes highlighted below (Table 2).

Program Leadership

The participants regularly emphasized the importance of program leadership, including program directors and chief residents, as well as institutional staff, to their sense of thriving in residency.

One area that many residents focused on was the value of having a leadership team that appeared genuinely responsive to resident concerns. As one pediatric resident shared, "I feel like I can go to [leadership] with any concerns or advice or ideas and they're really quick to act on change." (PGY2, P).

An additional subtheme that appeared frequently was the importance of leadership fostering a supportive culture. As a

Table 1 Characteristics of Study Participants (n=24)

Characteristic	Value
Mean age (range), years	30.2 (27–43)
Female	12 (50.0%)
Race	
White	13 (54.2%)
Black	5 (20.8%)
Asian	5 (20.8%)
Other	1 (4.2%)
Ethnicity	
Non-Hispanic	22 (91.7%)
Hispanic	2 (8.3%)
Specialty	
Pediatrics	9 (37.5%)
Internal medicine-pediatrics	8 (33.3%)
Internal medicine	7 (29.2%)
Year in residency	
Postgraduate year 1	2 (8.3%)
Postgraduate year 2	10 (41.7%)
Postgraduate year 3	10 (41.7%)
Postgraduate year 4	2 (8.3%)
Maslach Burnout Inventory, modified	
“How often do you feel burned out from work?”	
Never	1 (4.2%)
A few times a year or less	14 (58.3%)
Once a month or less	6 (25.0%)
A few times a month	3 (12.5%)
Once a week	0 (0%)
A few times a week	0 (0%)
Every day	0 (0%)
“How often do you feel you have become more callous to other people since you took this job?”	
Never	5 (20.8%)
A few times a year or less	9 (37.5%)
Once a month or less	7 (29.2%)
A few times a month	3 (12.5%)
Once a week	0 (0%)
A few times a week	0 (0%)
Every day	0 (0%)
Satisfaction (“All things considered...”)*	
“...how satisfied are you with your life in general?”, mean (CI)	8.2 (± 0.3)
“...how satisfied are you with your career choice?”, mean (CI)	8.75 (± 0.4)
“...how satisfied are you with your job as a resident?”, mean (CI)	7.9 (± 0.4)

*Subjects were asked to respond to an 11-point scale from 0 (“totally dissatisfied”) to 10 (“totally satisfied”)

resident explained, “[Leadership] at our hospital really is mission focused in terms of making sure that we have a... culture of supporting residents and who they are as people...[Every meeting with leadership] always starts with how you're doing as a human being...[which] as a culture [is] really powerful.” (PGY4, MP).

Residents also expressed appreciation for leadership that was clearly invested in their future success. As one resident emphasized, “I think having people who are invested in your success and having good mentors... that definitely contributes to our satisfaction.... Always feeling like [leadership is] invested in my success helps me with the work that I'm doing.” (PGY3, IM).

Learning Climate

Another major theme was the importance of a learning climate that emphasizes resident autonomy, education, and collaboration.

Table 2 Themes and Subthemes

Aspect of thriving	Subthemes (“The importance of...”)
Program leadership	<ul style="list-style-type: none"> • Responding to resident concerns • Fostering a supportive culture • Investing in residents’ future professional and personal success
Learning climate	<ul style="list-style-type: none"> • Giving residents clinical autonomy • Providing residents with feedback and encouragement • Emphasizing resident education • Fostering a collaborative and friendly work environment
Connectedness	<ul style="list-style-type: none"> • Deriving personal and professional support from colleagues • Maintaining interpersonal relationships with family and friends outside of residency
Joy in medicine	<ul style="list-style-type: none"> • Establishing meaningful patient relationships • Pursuing the intellectual aspects of clinical medicine • Acknowledging professional growth and personal accomplishment within medicine
Life balance	<ul style="list-style-type: none"> • Cultivating a work-life balance • Finding meaning and purpose outside of medicine • Prioritizing non-medical parts of life, including family, friendships, hobbies, faith, and other passions
Intrinsic factors	<ul style="list-style-type: none"> • Taking advantage of time off from clinical duties • Maintaining an optimistic disposition • Adopting a mindset that views residency as an opportunity for learning and growth • Having a deeply held value system

As one resident described, “I never felt alone but I also felt like if I wanted autonomy I could take it I didn’t want the fear of being just thrown in but I did want to challenge myself when the opportunities arose.” (PGY2, P).

Additionally, several residents highlighted the importance of receiving feedback from colleagues. As one pediatric resident explained, “I have felt the most [like] I’m thriving when I feel like I’m doing a good job but then it’s also acknowledged by other members of the team.... I feel like that praise is very helpful.... [and allows me to feel like this is] worth it and [that] I am doing a good job.” (PGY2, P).

Another key component to a sense of thriving in residency is an environment that prioritizes resident education. As one med-peds resident stated, “I think the things that help me thrive on the wards are when I get to teach or when someone [spends] time trying to educate me...When someone invests in your education.... that is really encouraging to me.” (PGY2, MP).

Finally, residents emphasized the importance of a collaborative and friendly workplace. As one interviewee explained, “So I think the biggest thing [in terms of being satisfied in residency] is just being in a work environment where people are working together.... not feel[ing] like you’re competing with them.” (PGY3, IM).

Connectedness

A nearly universal consensus among our participants was the importance of one’s relationships, both inside and outside the hospital, to a sense of thriving in residency.

In particular, almost every interviewee we spoke to emphasized the support they derive from their coresidents while going through residency. As one resident explained, “[One of the] things that have contributed to my satisfaction with being a resident are my co-residents, in being in a program where I’m surrounded by incredible people who [are] extremely selfless, extremely caring, and... very supportive of one another.” (PGY4, MP). Another participant echoed this sentiment - “The people and the sense of community that I have ... makes it so much easier to do what I love, which is taking care of patients...Having a collaborative group with a strong sense of camaraderie helps me to do what I want to do.” (PGY2, MP).

Moreover, many participants emphasized the importance of their relationships outside the hospital to their sense of thriving in residency. One resident described how her relationships outside of medicine actually helped her become a more empathetic physician—as she shared, “I think that [my connections with family and friends] give me an identity outside of medicine that I can both balance my identity within medicine with as well as give me purpose and identity to take into medicine....I think it’s important to see yourself as another person with family and with community and interests so you can relate to people on that level instead of just the level of a physician to a patient.” (PGY2, IM).

Joy in Medicine

For many of those included in this study, the opportunity to practice the art of medicine itself greatly contributed to their sense of thriving in residency.

Almost every resident highlighted meaningful patient interactions as an important factor in their sense of thriving. As one resident explained, “[I feel happiest as a resident] when I feel like I’ve actually made an impact on a patient both medically and as a human being; so when I feel like I’ve truly connected with the patient or with their family; and when I feel like I’ve done that while giving good clinical care.” (PGY4, MP).

Another subtheme that came up frequently was the joy one derives from the intellectual aspect of clinical medicine. As one resident stated, “Sometimes you see something really rare or you diagnose something really rare, there’s definitely this spark of like ‘oh this is why I’m doing medicine and this is what is so great about medicine’ and [you] try to figure out what’s going on and find the right therapy and hopefully make [the patient] better.” (PGY3, IM).

An additional subtheme we found in our analysis was a feeling of personal accomplishment and professional growth in medicine. One resident described this sentiment when he shared, “The work we do is truly magical.... There are, absolutely, so many opportunities throughout the day, so many moments of thriving for each and every one of us. Like, how often do we try to lower sodium by giving a patient fluids and then.... we’re like ‘oh good, it didn’t drop too much’ when we

could be like ‘oh yes! The math worked!... I truly made a difference in this person’s life.’” (PGY3, MP) Another resident explored the personal pride he has felt seeing his clinical acumen improve over time - “It’s [a] really fantastic feeling of reaching not just competency but feel[ing] like you’re doing things well clinically... of finally feeling like ‘oh I got this, I can lead this team, I know what to do in these situations. I know how to find the answers quickly.’ So that’s really an awesome feeling.” (PGY4, MP).

Life Balance

Many study participants emphasized the importance of work-life balance to achieving a sense of thriving in residency. One interviewee described work-life balance in residency as “[The] ability to love what I do and really put myself into my work but also have time for myself and things that aren’t work or work adjacent... whether it’s [time] with coresidents or my friends outside of work or things just for myself.” (PGY3, MP). Similarly, several participants highlighted the importance of focusing on one’s life outside of medicine. As an internal medicine resident explained, “The moments that I have of thriving are oftentimes...outside the work of residency. So when I’m able to grow beyond myself and continue experiencing the world. That I feel is thriving.” (PGY2, IM). One med-peds resident summed up the importance of work-life balance when she remarked, “I think it’s important to not try to find your meaning and purpose solely in being a resident. Certainly being a doctor is fulfilling work and you’re doing important work but I think that the best way to find value, to find thriving, is to not have your entire purpose and value solely be in practicing as a physician.” (PGY4, MP).

Moreover, residents stressed the importance of time off from the hospital to their sense of thriving. One resident remarked, “I think allowing residents... [to have] time off is what allows you to simmer and solidify your appreciation for the job...And I think being...forced to step away from the hospital via the structure of the work hours is... really important.” (PGY3, P).

Intrinsic Factors

Another major theme was the importance of intrinsic factors and personal attitudes to a sense of thriving in residency.

Many residents attributed their sense of thriving in part to their intrinsic optimistic disposition. As one subject put it, “I think overall I’m a very optimistic, glass half full kind of person. I think that I like to see the good in situations and the opportunities where I can find them... And I think that part of my personality has helped me as a resident.” (PGY2, P).

Other residents emphasized the importance of one’s mindset about residency to their sense of thriving. For instance, one interviewee explained that “I do think that a lot of residency in general is about having the right mindset and I think the correct mindset to have is to just be in tune to the process...not so much what the end goal is, and try to enjoy the ride as much as

possible.” (PGY2, MP). Another resident stated, “I feel like a lot of thriving in residency is about choosing to do that. And I feel like I do have some control over that..... [like] when I’m feeling...a little burned out, choosing to shift my mindset... Through that choice I can kind of talk myself out of some of those negative feelings that are natural...So I think partly I’m thriving because I’m choosing to be, I’m choosing to thrive, and it’s a conscious effort.” (PGY4, MP).

Additionally, several residents described how their faith has played a key role in their sense of thriving with residency. As one participant shared, “[my faith] helps me to affirm my purpose knowing that I’m doing what I was meant to be doing. Like everyday this is the work that I am meant to do and it feels like a real blessing to be doing this work and serving others in this way.” (PGY2, MP).

DISCUSSION

Our analysis revealed six main themes that contributed to a sense of thriving in residency: program leadership, learning climate, connectedness, joy in medicine, life balance, and intrinsic factors.

Our project offers insights into the factors that give resident physicians a sense of thriving both in their work and life more generally. While many prior studies have explored physician burnout, in this study we aimed to characterize some of the defining attributes of resident physician thriving. In the process, we have proposed a model of well-being that focuses on actively promoting a sense of thriving rather than simply mitigating burnout. Specifically, we propose a modern interpretation of the Aristotelian concept of eudaimonia that incorporates insights drawn from positive psychology as a framework through which to study and analyze resident physician thriving.

By examining resident physician thriving through the combined lens of eudaimonia and flourishing, we were able to capture important attributes of thriving that conventional components of well-being partly or wholly disregard. Our study findings support the validity of this theoretical approach by highlighting the importance of factors beyond mere happiness and satisfaction, such as establishing meaningful relationships, aiming for personal accomplishment, and creating a sense of purpose, that contribute to residents’ sense of thriving.

One interesting element to our analysis is that we evaluated resident thriving in the midst of the COVID-19 pandemic, a time during which residents were under immense personal and professional strain (even more so than usual) given the ever changing and uncertain clinical and public health environment. The fact that we were able to find so many thriving residents even in this highly challenging and emotionally wrought context bolsters our argument that the themes we have identified are strongly linked to a subjective sense of resident physician thriving.

There are several limitations to our study. Firstly, it is possible that we failed to uncover other themes that contribute to resident thriving in addition to the six we discussed here. We sought to mitigate this possibility through a rigorous qualitative approach whereby two researchers individually coded and analyzed the interview transcripts identifying relevant themes and thereafter comparing their findings. Secondly, given that our study was conducted at a single institution, it is possible that our results are not generalizable to other institutions or geographic locations. However, the fact that we interviewed residents from three different programs, each with their own unique cultures and characteristics, and still saw very similar themes across the three residency programs strengthens our belief that these themes would be pertinent to residents at other institutions as well. Similarly, given that we only interviewed residents from the pediatrics, internal medicine, and combined internal medicine-pediatrics specialties, it is possible that our results would not be generalizable to residents in other medical and surgical specialties. Furthermore, given that we only used a single interviewer, it is possible that our interviews were affected by implicit bias and leading questions. However, we proactively attempted to mitigate this risk by utilizing a semi-structured interview script for all participants. Finally, the senior author's status as a program director could theoretically have impacted residents' willingness to participate in the study as well as their responses. However, we believe this risk is minimal given that the senior author was not involved in recruitment of resident participants. Furthermore, we emphasized to all prospective interviewees that participation was completely voluntary, that all responses would be anonymized, that interviewees could always choose to withdraw from the study at any time, and that the medical student researcher alone would have access to their unredacted transcripts and identifying information.

Despite these limitations, we believe these findings have important implications for residency programs that seek to improve resident physician well-being and promote thriving among residents. These findings suggest that program leadership should focus efforts on fostering a supportive culture by responding to resident feedback and conveying values of individualized care. Moreover, our results indicate that residency curricula should be intentionally designed to secure dedicated teaching time, foster joy in medicine, facilitate more meaningful doctor-patient relationships, and promote greater social connectedness among residents. In addition to the curriculum, a larger focus should likewise be placed on optimizing the work environment to promote thriving—namely by guaranteeing residents more time off from the hospital.

Furthermore, our findings leave open the question of whether programs can potentially select for prospective applicants who possess intrinsic attributes that appear to be associated with thriving, such as an optimistic worldview, a deeply held value system, and a commitment to social connections. In the professional formation of a thriving physician, we speculate that it may be possible to cultivate or model these intrinsic

characteristics among individuals. Finally, these findings suggest that certain residency programs may embed the values and structures that encourage resident thriving. A thriving learning climate may beget a thriving resident. With this in mind, we believe that future study is needed to continue expanding our understanding of what factors contribute to resident physician thriving, what interventions can be implemented to promote physician thriving, and what impact physician-thriving initiatives have on important clinical metrics such as patient satisfaction levels and health outcomes.

CONCLUSION

We believe that efforts to promote thriving in medicine are equally as important as efforts to mitigate burnout. In this study, we have proposed a conceptual model to analyze resident physician thriving and have identified six key factors contributing to a sense of thriving in residency. Overall, our findings provide a compelling roadmap that residency programs can potentially use to help foster an environment of thriving among their residents.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11606-022-07504-6>.

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Corresponding Author: Joshua H. Hyman, BA; Yale University School of Medicine, 1074 LMP, PO Box 8030 New Haven, CT 06520-8030, USA (e-mail: Joshua.hyman@yale.edu).

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