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Resident career qual…

Title: Oh, The Places You'll Go!: A Qualitative Study of Resident Career Decisions in Emergency Medicine

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Abstract

Objectives: Post-residency career choices are complex decisions that involve personal, professional, and financial preferences, and may be influenced by training programs. It is unknown how residents navigate these decisions during Emergency Medicine (EM) residency. We explored EM residents' perspectives on career decision-making, and how residency programs can support career planning.

Methods: We conducted semi-structured interviews at seven accredited EM residency programs from diverse locations and training formats. We used purposive sampling to reflect the diversity of trainees with regard to gender, level of training, and career plans. Two researchers independently coded the transcripts. We used a constructivist-interpretivist paradigm to guide our thematic analysis.

Results: We interviewed 11 residents and identified major themes in three categories and. Residents described being exposed to career options through formalized curricula such as required rotations, career fairs, and subspeciality tracks, highlighting the importance of access to faculty with diverse areas of clinical and academic expertise. Many noted that exposure was often self-driven. We identified three major themes regarding career decisions: instrumental factors, people involved, and processes of decision-making. Instrumental factors included personal interests, goals, and values as well as practice characteristics, financial considerations, timing, and opportunity costs. Mentors and family were highly involved in resident career decisions. Residents often utilized reflection and conversations with mentors and peers in their decision-making process. Participants recommended that programs provide exposure to diverse career options early in training, protect time for career education, and ensure adequate

mentorship and a supportive community. Participants suggested specific curricular content and strategies to support career decisions.

Conclusion: This study illuminates important factors involved in resident career decision-making and how programs can support their trainees. Essential components include diverse experiences and building a reflective mentorship environment.

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Introduction

Every year physicians graduating from residency programs must make important decisions surrounding their immediate post-training job and plans for their long-term careers. Graduating emergency medicine (EM) physicians can consider a wide range of fellowships, telehealth, and locum tenens work, alongside more traditional community practice and academic faculty positions.[1-4] Every year training programs must make decisions on how to educate, support, and prepare residents to navigate these potential employment opportunities.

Prior literature has demonstrated that career choices are complex decisions, involving personal, professional, geographic, and financial preferences.[5-12] Training program characteristics such as location, duration, culture, presence of scholarly tracks, mentorship, and faculty research productivity may also influence these decisions.[12-18] Mentorship has been identified as a valuable resource to support residents in their career decisions, yet mentorship alone may not satisfy all trainees' needs.[7,12,19] Other activities such as immersive exposure to careers during training may be beneficial.[20] How residents navigate these important career decisions during EM residency training and what structures and resources programs can incorporate to best prepare and support residents to make these decisions is incompletely understood.

Understanding these important aspects will help institutions provide the best training possible and has implications for ensuring that residents select career paths that meet their needs. Our objective was to explore EM residents' experiences pertaining to career decision-making, including their perspectives on how training programs can best support their career decisions. In doing this, we hope to provide insights for residency programs looking to enhance support and instill confidence in residents making career decisions.

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Methods

Study design

We performed a qualitative study of semi-structured interviews with EM residents. We used a constructivist-interpretivist paradigm to guide our thematic analysis.[21-22] This study was "certified exempt" by the institutional review board of the David Geffen School of Medicine at UCLA.

Study setting and population

This study was conducted across seven Accreditation Council for Graduate Medical Education (ACGME)-accredited EM residency programs. The lead author purposefully recruited sites of diverse locations and training lengths. All EM residents at these sites were eligible to participate. We employed a purposive sampling strategy, seeking diversity of representation in terms of institution, gender, post-graduate training level, and whether their career plans had changed or stayed consistent during residency. We collected data between March 2022 and May 2022.

Instrument development

Informed by a literature search, our study group of EM education researchers and program leadership who were experienced in guiding trainees through career decisions, developed a semi-structured interview guide to optimize content validity. We used a constructivist-interpretivist paradigm with a focus on open-ended questions to maximize depth of response.[21-22] We read the interview questions aloud amongst the author team and piloted with a small group of representative subjects to ensure response process validity and made revisions for clarity based on feedback. The final interview guide is available in Appendix A.

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Study protocol

We invited potential participants by email to participate in a virtual interview via Zoom video conferencing platform (Zoom Video Communications, Qumu Corporation, San Jose, CA). Two members of the study team with advanced training and experience in qualitative research (JJ and SOC) conducted the semi-structured interviews, each lasting approximately 60 minutes. We recorded and transcribed all interviews verbatim, and transcripts were de-identified and edited for accuracy prior to analysis. The interviewers met bi-weekly to discuss the interview process and preliminary findings. We did not make any changes to the interview script once data collection had started. We uploaded all edited interview transcripts into Dedoose, a collaborative qualitative analysis software platform (Dedoose, Sociocultural Research Consultants, LLC, Los Angeles, CA).

Data analysis

The two interviewers (JJ and SOC), independently reviewed the data and performed a thematic analysis guided by a constructivist-interpretivist paradigm.[21-23] These researchers performed both open and axial coding, examining data line by line to identify recurring concepts and assign codes.[22-23] The two researchers then met to establish a final coding scheme which was independently re-applied to all data by JJ and SOC. The overall agreement between the two researchers was 93% (3177 codes agreed upon/3434 codes applied). The researchers resolved discrepancies through in-depth discussion and negotiated consensus. JJ and SOC then further refined the codes into themes using the constant comparative method.[24] After the 10th interview, the subsequent interview yielded no additional insights or counterexamples. At that point, we felt our sample was sufficient for the study purpose.[25] To enhance the trustworthiness of our

analysis, we used memos to record reflective thoughts in addition to real-time member checking.[21-22, 26]

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Reflexivity

We remained aware that the two researchers who conducted the interviews and performed the qualitative analysis hail from academic institutions, hold educational leadership roles in their department, and actively mentor residents in their career decisions. These shared lived experiences may have yielded similar interpretations of the data and analysis. To address this, we used a negative case analysis when we identified outlier data, allowed adjustments of discordant hypotheses as needed, and focused our analysis on what participants actually said rather than implied meanings during coding.[21]

Results

We invited 16 residents to participate; 11 consented to be interviewed and 5 did not respond to the invitation prior to reaching sufficiency of sample. The characteristics of participants are displayed in Table 1. Participants came from diverse backgrounds and six had experience in other fields prior to medicine. During our qualitative analysis, we identified themes in three categories: 1) exposure to career paths; 2) career decision-making; and 3) recommendations for residency programs to support resident career decision making (Table 2).

Exposure to career paths

We identified three major themes regarding how residents were exposed to career paths: formalized curricula, self-created opportunities, and faculty mentors. Formalized curricula included career fairs, clinical rotations in varied practice environments, dedicated rotations in subspecialty areas and specialized career tracks. As one participant noted, “We have something

called academic practice tracks…I think there's like 17 [including] geriatrics, toxicology, critical care, social EM, global health, etc. I think the practice tracks are incredibly helpful because it's easy to get sidetracked…and [the track] helps me stay focused" Participant 9. Some participants noted a less structured approach. "[The leadership] treat you like an adult and are like 'If this is your interest you go ahead and pursue it and then we'll support you in that.'" Participant 7. Participants noted that some of their exposure was driven by their own actions where they proactively asked questions to learn more about a certain career, deliberately sought out opportunities to actively participate in a specific area or used their free time to "test the waters" in a field. Faculty also played an important role in resident exposure, offering diverse expertise in various niches, being open to discuss their own career journeys, and providing opportunities for involvement in scholarly work.

Career Decision-making

Regarding resident career decision-making, we identified three major themes: instrumental factors, people involved, and processes utilized. Together these themes help elucidate the why, who, and how of resident career decision-making.

Instrumental factors (why): Participants described multiple factors that impacted their career decisions. A common early driver was their personal interest and enjoyment in a particular area. They also noted that alignment of intrinsic characteristics such as personality traits or aptitude for areas of interest further supported their decisions. As one participant commented, "In terms of wanting to do an ultrasound fellowship I had some exposure as a medical student to an ultrasound rotation and I really enjoyed it and I think, had a bit of an aptitude for it at that time, and so that sort of became a natural interest of mine and then that's continued through residency"

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Participant 2. They often considered their prior experience, such as skills they had developed through prior work or training, meaningful interactions with patients, major societal events such as a pandemic, exposure to particular subspeciality niches, as well as their age and life stage. Their decisions were often guided by their personal values and they sought alignment of jobs, employers, and practice characteristics with these values. They also noted making decisions based on their career goals and anticipated outcomes, selecting career paths that they believed would help them achieve these. Importantly, some participants reported deliberately considering career paths that would help ensure career longevity and purposefully seeking to diversify their skillsets to afford them maximum opportunities. Financial considerations also played a role for many participants as did opportunity costs, particularly surrounding decisions on whether to pursue additional training after residency.

People involved (who): Most participants reported that they were not alone in their decision making and often incorporated the insights and needs of others. Family was particularly important. Many participants noted the influence of children (present or anticipated) and how they fit into the expected lifestyle of various career options. For those that had partners, their partner's needs and career also played a role. One participant acknowledged, "The needs of my family and my husband's career also played a role" Participant 4. Participants noted that peers and faculty mentors were also involved in their career decisions.

Process (how): In terms of how participants ultimately made decisions about their careers, the majority reported incorporating advice from their mentors. Participants also highlighted the importance of discussion with additional sources including family and peers. These sources were often important sounding boards for participants. As one participant commented, "[My mentor] is someone I've bounced ideas off of a lot" Participant 9. Participants also noted

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utilizing self-reflection, at times being surprised at their own preferences or indecision. They also commented that doubt and second-guessing their decisions was part of this process. One participant shared, "I don't think I would have been unhappy in something else, and I sometimes feel like if I had more time to explore, I probably would have done something different and could have been really happy with that too, but it's hard to say" Participant 3.

Recommendations for residency programs to support resident career decision making

Participants offered suggestions for how training programs could support resident career decision making. Major themes included content, strategies, and timing. Participants noted it would be beneficial to have a panel of recent graduates or faculty with diverse careers share their experiences. They also suggested education on job search logistics and how to transition to life post residency. They suggested strategies such as mentorship and highlighted the importance of having access to mentors with diverse expertise as well as supportive leadership who were invested in the trainees' futures. One participant aptly commented, "I think it's important to have a variety of faculty mentors available for residents that have different career goals and then being able to access them and have them provide guidance on what are the next steps, how to improve their application or what experiences they need to have under their belt to be prepared for whatever career path they choose" Participant 2. Participants also noted that a broad exposure to diverse career options as a required part of the curriculum would be helpful. However, they emphasized that curricula should still be flexible to support resident self-direction and allow time and space for residents to explore their own passions and interests. "I think having flexible elective time; dedicated time with the ability to take as block time or longitudinal would be helpful" Participant 10. Participants felt that timing was important and recommended that

exposure to different career paths and conversations about planning take place early in training to help focus goals and direct training activities. They also highlighted the importance of protecting time for career education so that all residents would have access.

Despite some uncertainty about what the future will hold, most participants felt prepared to make these important decisions about their careers at the end of residency, were satisfied with their decisions thus far, and excited for the next step in their journeys. As one participant optimistically described, "I am happy and I think I would see myself happy doing that in the future, knowing that is the potential end…[this career path] is hard and it's not perfect and there's a lot of things to cause burnout, but getting [to experience this career path] made me re-appreciate it and fall in love again with the specialty" Participant 11.

Discussion

The reasoning behind how residents seek to launch their careers post-residency is of interest to residents and programs alike. In this paper, we gleaned important insights through the eyes of residents actively engaged in the process. As might be expected, exposure to potential career paths was a key driver in career planning. We found a wide array of approaches across programs, from highly curated experiences such as longitudinal career tracks and career fairs to informal and resident-led connections between residents and faculty based on shared interests. It is interesting to note that the ACGME, while supporting mentorship for residents, provides no specific direction to programs as to what constitutes sufficient support for career planning among trainees and offers no suggested best practices.[13,27] Formal career tracks are more common among 4-year residency programs, larger programs, and those offering a greater number of fellowship programs.[13] Whether focused on areas of clinical practice (e.g. ultrasound,

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toxicology) or not (e.g. administration, education), tracks are associated with a higher likelihood of subsequent academic career paths among residents.[13] Despite the purported benefits of career tracks (e.g., advanced training in an area of focus, career guidance and room for exploration), tracks remain an inconsistent offering among EM residency programs and may be beyond the means of some programs to provide.[13,28] Our study was largely consistent with the existing literature. Experience with career tracks and similar activities (e.g. journal clubs focused on a particular area such as global health) were viewed favorably. However, such experiences were not ubiquitous, and residents who did have access to these experiences described their value primarily as being a means to identify and establish relationships with potential mentors.

We also found that valuable career mentorship occurred both inside and outside of formalized advisor-advisee pairings. Residents often sought out these relationships on their own initiative and through shared interests. Residents cited the access to trusted sounding boards (mentors, family, peers) as critical to their decision making. In their narrative review of mentorship in EM residency training, Sobel et al. described these relationships as often combining elements of traditional mentorship (longitudinal, informed by the mentor's perspective and experience) as well advising (formal, focused on assessing the advisee's academic progress) and coaching (centered in direct observation and focused on providing feedback).[29] We found threads of each of these models in participants' descriptions of mentorship relationships. Yet, beyond personal identification with a particular mentor or potential career path, residents expressed the importance of faculty members' accessibility and openness to engaging in mentoring as being the most important catalyst for their own career planning.

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Career decision-making is a complex process. We found evidence that residents' career planning was guided not only by personal aspirations and visions of a future self, but by a desire to align past experience (often outside of clinical medicine) and core values with an intended career path. As a specialty, Emergency Medicine may be somewhat unique in this regard. Post-graduate training opportunities span the gamut of ACGME-accredited fellowships (e.g., medical toxicology, sports medicine, emergency medical services) to formative experiences more akin to niche development (e.g., medical education, simulation, geriatrics, social EM). While the literature on post-residency career paths has largely framed the question in terms of traditionally "academic" career paths (e.g., fellowship, faculty appointment) versus "non-academic" community practice, we found that many graduates considered fellowship as a means of pursuing an area of interest or testing the notion of academic practice rather than pursuing it explicitly as a career path.[10-11,16,18] The relative openness of EM as a specialty with regards to career path also led some to view fellowship and traditional academic careers with a skeptical eye. We found an acute awareness of the opportunity costs associated with additional training, especially when considering the influence of education-related debt and the need to balance personal ambition against the needs of partners and children.

Recognizing the nuance involved in these decisions and the time needed for self-exploration, programs must approach this facet of training with intention and willingness to reconsider their current approaches. Exposure to potential career paths through early elective time and experiences outside of one's primary training site represent an ideal state that may not be achievable by every program. Nonetheless, residents in our study offered a number of meaningful interventions that are likely achievable regardless of program format or the size and breadth of expertise within a given faculty. Among these recommendations were the utilization

of panel discussions with program graduates or faculty with diverse career paths and education on job search logistics and the financial transition into post-residency life. These simple programmatic interventions represent low hanging fruit for any program and may be a means by which residents can both broaden their thinking in regards to post-residency careers and establish relationships with potential mentors.

Limitations

There are several limitations to consider when interpreting the study findings. We sought a diversity of backgrounds and perspectives among residents with regards to intended career path as well as a representative sample of programs in terms of format and geographic location. We recognize that a study such as ours represents a small window through which to view a complex and highly individual decision-making process. Additionally, the participating sites were largely academic institutions, and it is possible that a differently composed participant pool may have yielded different results. We also acknowledge that the two primary interviewers and coders (JJ and SC) are both academic emergency physicians with their own perspectives on the relative merits of fellowship training and traditional academic paths. While we sought to maintain rigor and trustworthiness in our analysis, we recognize that our relationship to the research question and data may have been influenced by our own perspectives.

Conclusions

This study illuminates important factors involved in resident career decision-making and how programs can support their trainees in this important process. Essential components include diverse experiences and building a reflective mentorship environment. Structural interventions (e.g. career fairs, panel discussions with recent graduates) can have a meaningful impact.

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Table 1. Characteristics of participants

	n (%)
Region	
West	5 (45)
Midwest	3 (27)
Northeast	3 (27)
South	0 (0)
Residency duration	
3 years	6 (55)
4 years	5 (45)
Training level	
PGY-2	5 (45)
PGY-3	4 (36)
PGY-4	2 (18)
Gender	
Male	6 (55)
Female	5 (45)
Career path changed during residency	
Yes	4 (46)
No	7 (64)
Current post-residency career plans	
Community practice	3 (27)
ACGME accredited fellowship	4 (46)
Non-ACGME accredited fellowship	3 (27)
Undecided	1 (9)

ACGME = Accreditation Council for Graduate Medical Education

Table 2. Major Themes

Category	Major Themes	Subthemes	Number of interviews containing theme	Exemplar Quotes

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			n= 11	
Exposure to career education and opportunities				
	Formalized curricula		10	"We have career development tracks where you can pick specifically what you want to do like education, ultrasound, global health…" Participant 11
	Faculty mentors		8	"I think a lot of it obviously comes through kind of exposure to attendings and fellows and discussing what their projects are with them, and you know, listening to the kinds of things that go on." Participant 7
	Self-created		8	"I can self-design my own electives and get some mentorship through our [faculty] who do that." Participant 11
Basis of career decisions/career plans				
	Instrumental factors			
		Opportunity costs	8	"You gain a lot more skills doing a fellowship but I felt that if I'm not even going to use that fellowship to be able to, or if it's not that easy to get the job that you want from it, is it really worth it?" Participant 3
		Values	6	"I knew in medical school that more than the science and the physiology I really enjoyed the interpersonal component of medicine, and so I knew I liked the relationships that I had and value the relationships that I have with my patients." Participant 8

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		Goals	8	"My focus is really how do I become the best clinician and understand how these things present to the ED and what sorts of things can happen there, but ultimately that's not primary prevention in the ED. I want to apply it to what could be real primary prevention outside. Sort of social EM but you know, ultimately, with the goal of doing primary prevention in the community." Participant 9
		Interests	9	"I think it's a good combination of my interests in terms of being involved in coming up with a science that guides clinical practice, in addition to also allowing me to kind of practice environment I want to be in later, either fully academic or mixed academic environment and that's why I think ultimately landed in this situation." Participant 10
		Intrinsic characteristics	7	"I'm quite an efficient person…it's always been something that's a part of my personality." Participant 7
		Financial	7	"I have a lot of debt, and I have three kids that I have to save for college for. I think the finances of my situation are significantly different than most people and that I really have to ultimately make the right decision based on finances for my family." Participant 4
		Practice characteristics	11	"Working in the community feels a little bit more of my preferred workflow…It's

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				just my preferred pace and atmosphere." Participant 1
		Prior experience	10	"I have a background in teaching and so I think working in academic center is appealing because I feel like I would like to use my background in education and work in that field." Participant 4
	People involved			
		Family	6	"As a young single person who's unmarried I might have made different decisions but that's my reality so of course I take them into consideration and consider careers that give me the opportunity to take days off or work more nights so that I can be home with my kids." Participant 2
		Faculty mentors	11	"I think predominantly the willingness of faculty members to act as mentors has been just the biggest aspect of this." Participant 10
		Peers	7	"I have a close friend and co-resident…we always talked about what we want to do with our careers so he was very helpful." Participant 1
	Process			
		Advice of mentors	10	"I think it's good just being able to work with those faculty and then getting their feedback like, 'Yeah I think you'd be a good fit.' It means a lot." Participant 6
		Discussion	7	"He's someone I bounced ideas off of." Participant 9
		Reflection	6	"If I'm being totally honest, I think I'm a little bit al over

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				the place in the sense that I am somebody who knows that I will probably have an unconventional career path…I'm not somebody who enjoys routine…. I think it's made me think a little bit creatively about what I want my future to look like." Participant 8
Recommendations for residency programs to support resident career decision-making				
	Content		4	"I think it would be really helpful to have recent graduates come back and do a panel for us and just talk about the job market, applying for jobs, what kind of experiences they had….It would also be interesting to have a panel of faculty to discuss their career paths, especially the people who have worked in a couple of different sectors. They could talk about what their experiences were in the different sectors and the advantages and disadvantages of each of them." Participant 4
	Strategies		8	"Having a lot of opportunity to see different careers that stem from emergency medicine is a good idea." Participant 5
	Timing		4	"I feel like having those [subspecialty] rotations earlier could help. Sometimes when we are exposed to them it's too late

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				to do anything about it." Participant 3

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Appendix A. Interview Script

What is your age?

What is your PGY level?

What gender (if any) do you identify as?

Do you hold any advanced degrees in addition to MD/DO? If yes, please please list. (ie: MPH, MPP, PhD, EdD, MHPE, or other Masters)

Tell me about your path to becoming an emergency physician. Did you consider any other careers?

Has anything surprised you about emergency medicine? Do you still feel it's the right choice?

What do you enjoy most about your medical practice?

What kinds of things help you find purpose in your work (both clinically and outside the clinical environment)?

How would you describe your exposure to a variety of career paths/niches in emergency medicine?

What are your career plans after residency?

How did you decide on your current career path? What kinds of things influenced this decision?

What other career paths have you considered? Why are you not pursuing them?

Is there something you'd rather be doing but you're limited by some factor (location, money, family, etc.)?

How does your chosen path help you achieve the things you want in your career?

Who has been involved in your career decisions?

Has anything surprised you about your career decisions?

Have your career plans changed during residency? If yes, please describe.

In what ways did major events affecting the specialty of emergency medicine influence your career decisions? (i.e. Covid pandemic, ACEP workforce study, etc.)

What kinds of experiences during residency were particularly impactful as you thought about your post-residency career?

Was there anything that your residency program did (or had in terms of requirements/expectations) that was particularly helpful to your career decision making?

Do you have any suggestions for how residency programs can best support resident career decision making?

Do you feel prepared to make career decisions at this time? Is there anything that would help you make this decision better?

Is there anything else you would like to share regarding your career decisions?

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