

‘In Our Era...’: Feedback Perceptions Across Generational Cohorts

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ABSTRACT

Introduction: Generational differences in medical education remain unclear. In today’s multigenerational workforce, identifying whether generational differences exist in feedback practices may inform more individualized, learner-centered education. This study explored whether generational differences exist regarding feedback practices and preferences.

Methods: This qualitative study was informed by Generational Cohort Theory and Social Cognitive Theory. We interviewed third- and fourth-year medical students, house officers, and attending physicians in pediatrics, internal medicine, and surgery at the Medical College of Wisconsin between October 2020 and March 2022. A constructivist grounded theory approach was used to analyze interview transcripts and develop themes. Questions explored characteristics of helpful and unhelpful feedback, preferences for giving and receiving feedback, and opinions regarding the role of age in the feedback process. Themes were compared across generational cohorts.

Results: Thirty-eight individuals participated, with birth years spanning 1949 to 1994 (8 Baby Boomers, 9 Generation X participants, and 21 Millennials). Both generationally unique perspectives and common themes shared across cohorts were identified. Overarching themes included the influence of medical hierarchy and the importance of the relationship between the feedback giver and receiver. Most interviewees did not believe that age explicitly influences feedback practices, although perceptions of generational differences were present.

Conclusions: Different generational cohorts expressed distinct practices and preferences regarding feedback. Importantly, shared themes across generations aligned with established hallmarks of effective feedback in medical education literature. Acknowledging and thoughtfully addressing generational differences – with attention to medical hierarchy and relationships may improve feedback effectiveness and satisfaction.

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INTRODUCTION

Feedback is an important aspect of medical education and has been shown to decrease remediation, improve trainee performance, and directly affect patient care.¹⁻⁴ Despite these benefits, both medical learners and teachers report suboptimal feedback experiences.⁵⁻⁹ Themes in feedback studies suggest that learners want feedback, are careful in how they seek feedback, and care about the attitudes of the feedback provider.^{4,8,10} Understanding individual variation in perceptions of feedback is therefore critical to improving feedback practices.

It is not uncommon for a medical team to consist of multiple generations, with as many as 5 generations represented in the current workplace. It is widely assumed that there are distinct differences in the workplace across generations. Baby Boomers are typically caricatured as competitive, achievement oriented, and more dedicated to their work than younger generations. Generation X (Gen X) is often described as independent, skeptical

of authority, and more concerned with work-life balance. Millennials are often characterized as tech-savvy and placing high value on leisure. However, little empirical data exist to support these beliefs, and the effects of generation on the workplace may be overestimated.^{11,12} In medicine, a growing body of literature questions whether or how generational differences inform interactions between teachers and learners.¹³⁻¹⁷

Social Cognitive Theory proposes that learning is influenced by a dynamic and reciprocal interaction between a person’s behavior,

Box. Interview Questions

1. Provide an example of a time in your medical education when you received feedback from an instructor or supervisor that was helpful for you.
2. Provide an example of a time in your medical education when you received feedback from an instructor or supervisor that was not helpful for you.
3. How do you like to give feedback? Please provide an example.
4. How do you like to receive feedback? Please provide an example.
5. Describe a time you found it easy to give honest constructive feedback.
6. Describe a time you found it difficult to give honest constructive feedback.
7. Are there any differences in the feedback you receive from peers, attendings, or students that are close to your age versus those from an older generation? If so, what are these differences? How about from a younger generation?
8. What characteristics of the receiver do you consider when giving feedback?
9. In your opinion, what is the purpose of feedback?

personal characteristics, and social environment.¹⁸ More specifically, Generational Cohort Theory posits that collective life experiences—including societal, cultural, and economic changes—shape each generation and inform its value system.¹⁹⁻²¹ These experiences also occur in the workplace and shape distinct generational values.²² Generational Cohort Theory has been proposed as a tool for fostering understanding and collaboration among workers of varying ages.¹⁶ Thus, if different generational cohorts exposed to different environments during their upbringing exhibit different perspectives and preferences, the question arises whether they also have different opinions and expectations regarding feedback in medical education.

Ultimately, there is a gap in generational literature using robust research methods and empirical evidence to draw conclusions that could inform best feedback practices in a multigenerational workforce.²³ To address this gap, our study utilized qualitative research methodology to investigate whether differences in feedback practices and preferences exist among different generational cohorts and, if so, to define potentially unique generational themes. Improved understanding of generational differences in attitudes toward feedback may help inform more effective feedback practices.

METHODS

Study Design and Setting

This single-center study was conducted at the Medical College of Wisconsin (MCW), an academic medical center with an associated 4-year medical school and more than 100 residency and fellowship training programs. A novel set of interview questions was created through iterative review by medical education experts at several American medical colleges to establish content and face validity (Box). The questions explored participants' opinions on effective and ineffective feedback practices and the potential role of age or generation in feedback experiences.

One-on-one semistructured interviews were conducted using a Constructivist Grounded Theory (CGT) approach to support inductive data analysis rather than impose a specific a priori the-

Table 1. Participant Demographics Including All Generational Cohorts

Variable	Frequency (%)
Gender	
Male	15 (39)
Female	23 (61)
Other	0 (0)
Ethnicity	
White	32 (82)
Hispanic/Latino	2 (5)
American Indian/Alaskan Native	0 (0)
Black/African-American	1 (3)
Asian	1 (3)
Native Hawaiian/other Pacific Islander	0 (0)
South Asian	3 (8)
Middle Eastern/North African	0 (0)
Other	0 (0)
Generational cohort	
Baby Boomer	8 (21)
Generation X	9 (24)
Millennial	21 (55)
Stage in training	
Medical student	3 (8)
House officer	7 (18)
Completed training (attending physician)	28 (74)
Specialty	
Pediatrics	26 (74)
Internal medicine	7 (20)
Surgery	2 (6)

ory.²⁴⁻²⁸ As the legitimacy of Generational Cohort Theory remains debated in the psychological and social academic spheres, use of de novo analysis through CGT was considered most appropriate when researching values and perceptions among participants.²³ The data then underwent thematic analysis.

Ethical approval for this study was granted by the Medical College of Wisconsin Institutional Review Board (Protocol ID PRO00036787; August 24, 2020).

Participant Sampling

Inclusion criteria included house officers (residents and fellows) and attending physicians in pediatrics, internal medicine, and surgery as well as medical students in their third or fourth year who had completed at least 2 clinical rotations. Persons not proficient in English and international medical graduates were excluded. International medical graduates were excluded to preserve the study's theoretical framework, in which environment, including geographic location, shapes ideas and values.

Email invitations linked to a secure online survey platform (Qualtrics) were used to confirm eligibility to participate. Eligible participants then completed a demographics survey (Qualtrics) that collected information including birth year, year in training, specialty, years out of training, ethnicity, and gender (see Appendix). Generational cohorts were defined as Baby Boomers or Boomers (born 1946-1964), Generation X or Gen X (born

1965-1980), and Millennials (born 1981-1996).²⁹ Demographic data are shown in Tables 1 and 2.

Data Collection

Interviews of eligible participants were conducted by authors MS, DL, and KS between October 2020 and March 2022 via a secure videoconferencing platform (Zoom Video Communications, Inc). Participants and interviewers were intentionally paired to avoid evaluative relationships. Interviews were audio-recorded and transcribed verbatim, and interviewers took field notes. Demographic survey results were linked to the corresponding interview data and deidentified by assigning a study number.

The first 6 participants were sent their respective transcriptions to assess data authenticity; no revisions or additions were suggested. Data collection continued until the authors agreed that thematic saturation had been achieved.

Data Analysis

Three authors (MS, DL, and KS) manually coded data on a secure online database (REDCap Version 11.1.9, Vanderbilt University, Nashville, Tennessee). The coding team met to collaboratively complete first-round coding using the first 3 interviews to refine definitions, coding procedures, and coding schemes. The team used the constant comparative method to iteratively analyze transcripts.^{30,31} At least 2 authors independently reviewed the remaining transcripts to develop first-round codes. Two authors (MS and KS) collaboratively developed second-round codes and themes. This collaborative approach was intended to strengthen intercoder reliability and incorporate diverse perspectives.^{31,32}

Because each participant shared unique opinions and experiences, responses varied across questions. Consistent with the study's objective of identifying generational commonality, themes were considered significant within a generational cohort if they were present in at least one-third of participants in that cohort. This threshold aligns with qualitative research guidance suggesting that codes and themes present in one-fourth of participants may warrant consideration as potentially significant.³¹ Themes were compared by generational cohort, with identification of both common themes (across all 3 generations) and unique themes (specific to a single generation). Themes shared by only 2 generations were not reported. Three research team members confirmed consensus on data interpretation.

Reflexivity was considered throughout the process, acknowledging our backgrounds and biases as Millennials (MS and DL) and as a Generation Xer (KS). The coding team repeatedly returned to the raw data to ensure accurate representation of participants' perspectives rather than researcher assumptions. In addition, regular input from the full research team (Millennials, Generation X, and Boomers), focused on accurate representation of the data.

Table 2. Participant Demographics per Generational Cohort

Variable	Boomer	Gen X	Millennial
Birth year range (mean)	1949-1964 (1959)	1971-1980 (1976)	1982-1994 (1987)
	Frequency (%)	Frequency (%)	Frequency (%)
Gender			
Male	5 (63)	6 (67)	4 (19)
Female	3 (37)	3 (33)	17 (81)
Other	0 (0)	0 (0)	0 (0)
Ethnicity			
White	8 (100)	8 (89)	16 (76)
Hispanic or Latino	0 (0)	0 (0)	1 (5)
American Indian/Alaskan Native	0 (0)	0 (0)	0 (0)
Black/African-American	0 (0)	0 (0)	1 (5)
Asian	0 (0)	0 (0)	1 (5)
Native Hawaiian/other Pacific Islander	0 (0)	0 (0)	0 (0)
South Asian	0 (0)	1 (11)	2 (10)
Middle Eastern/North African	0 (0)	0 (0)	0 (0)
Other	0 (0)	0 (0)	0 (0)
Stage in training			
Medical student	0 (0)	0 (0)	3 (14)
House officer	0 (0)	0 (0)	7 (33)
Completed training (attending physician)	8 (100)	9 (100)	11 (52)
Years in practice (<i>attending physicians only</i>)			
21+ years	7 (88)	0 (0)	0 (0)
11-20 years	1 (12)	5 (56)	0 (0)
5-10 years	0 (0)	3 (33)	6 (29)
3-4 years	0 (0)	1 (11)	3 (14)
1-2 years	0 (0)	0 (0)	1 (5)
<1 year	0 (0)	0 (0)	1 (5)
Specialty			
Pediatrics	6 (75)	8 (89)	12 (57)
Internal medicine	2 (25)	1 (11)	4 (19)
Surgery	0 (0)	0	2 (10)

RESULTS

Thirty-eight individuals participated in this study, with birth years spanning from 1949 to 1994, including 8 Baby Boomers (23%), 9 Generation Xers (24%), and 21 Millennials (55%). Most participants were pediatricians and attending physicians, although multiple specialties and training levels were represented (Table 1). Attending physicians' years in practice ranged from less than 1 year to more than 21 years. Years in practice trended as expected with generational cohort; there were no Baby Boomers with fewer than 11 years in practice and no Millennials with more than 10 years in practice (Table 2).

There was intragenerational variation in opinions on feedback. Our results also showed that each generational cohort had unique themes that emerged for each interview question. Additionally, there were themes that were universal to all generational cohorts. Findings for unique and shared themes, along with supporting quotes, are presented in Table 3.

Table 3A. Themes per Generational Cohort, Questions 1–3

Unique to Baby Boomers (N=8)	Unique to Gen X (N=9)	Unique to Millennials (N=21)	Shared by All Generations
Question 1: Characteristics of helpful feedback			
<ul style="list-style-type: none"> Boomers didn't get feedback as trainees Abuse is caring Split on public vs private <p>"Typically, I wouldn't get feedback. There wasn't any structured feedback... In those days, there was not nearly as much of an attempt to label feedback as we have now."</p> <p>"I don't think it'd be tolerated in 21st century... it might be borderline harassment. In our era, it was kind of you know, get your tough skin."</p>	<ul style="list-style-type: none"> Frequent Personalized Experienced with feedback Direct <p>"There were 2 particular attendings I think that were very good at it ... [One was] very senior, had been doing this and won all the teaching awards for, you know, decades. One of these people that's just master of his craft."</p>	<ul style="list-style-type: none"> Observed Follow-up provided <p>"... we had talked about one of the things that I was concerned about. And so she gave really tangible tips to that point. So, it was helpful getting targeted feedback."</p>	<ul style="list-style-type: none"> Safe Useful Specific Relationship Timely <p>"... the attending came from the position of 'I think you're a great intern. You're going to be a great pediatrician. I want to help you be better.'... It came from the standpoint of somebody who really did seem very interested in me and interested in my being successful." – Baby Boomer</p> <p>"... my favorite feedback was from my main mentor who had such a good way of positively and quickly calling out what needed to be called out" – Generation X</p> <p>"She's someone who I actually got to know as a first-year medical student... I continue to mentor with this individual even now that I am here." – Millennial</p>
Question 2: Characteristics of unhelpful feedback			
<ul style="list-style-type: none"> Unexpected Only critical <p>"I prefer it not on the fly... I do not appreciate kind of being ambushed."</p>	<ul style="list-style-type: none"> Lack of feedback Content: Personality No relationship/poor relationship <p>"It was attacking kind of who I am, not what I do, and so I think that kind of feedback, you have to be pretty careful about. And it was not a trusted relationship."</p>	<ul style="list-style-type: none"> Unidirectional No guidance/tips for improvement Written <p>"We never had a dialogue, and I think that was the hardest part about that feedback. It was just totally one-sided of 'do this' and you know I could never like say, 'Did I improve? Did I not improve?'"</p>	<ul style="list-style-type: none"> Vague/generic Not actionable Disagree with feedback giver Punitive Impractical Humiliating <p>"The time that the vascular surgeon called me useless in the OR... that was pretty useless feedback... yelling at somebody when you are not in control is very, very detrimental... It's just not helpful." – Baby Boomer</p> <p>"In medical school I was told that my voice was too high and so no one would take me seriously. That was not helpful... There was no context... I think without context feedback is pretty meaningless... It was also provided in front of a lot of other people, which was unfortunate." – Generation X</p> <p>"If it's a one-off thing that somebody harps on, it's good to be aware of but it's probably not going to change anything that way." – Millennial</p>
Question 3: Preferences for giving feedback			
<ul style="list-style-type: none"> Public = immediate Relationship Uncomfortable giving critical feedback Prefers positive feedback Individualized based on training level Did not mention technology <p>"Nowadays they're [students] off for protected time for this, and they've got this, and I've got that... so I might not see them but twice in the first week... I'm supposed to give them feedback based on those two observations and it seems kind of crazy."</p>	<ul style="list-style-type: none"> Consider personal circumstances outside of work <p>"I think it did open a little bit about some of the personal concerns he was having. He was able to share that a little bit later, 'I really haven't been sleeping well.' And this was several months into residency. He's like, 'My bed just arrived today. I now have a mattress to sleep on.' And I was like, 'oh my gosh, you poor thing.' Like not even sleeping on a bed, right?"</p>	<ul style="list-style-type: none"> Goal-oriented Expected Scheduled Actionable Focused Written can be OK Provide opportunity for improvement <p>"There's a structured way that we go through the form with the attending that you're working with, and I thought that was a really good way to kind of make sure I was getting the quality feedback that I was really seeking."</p>	<ul style="list-style-type: none"> Framework with self-assessment Timely Specific Although many acknowledged there are circumstances public feedback is OK, most prefer private <p>"I often start and say 'I'm a sounding board for you. I know you've had lots of summative evaluation throughout your career and are probably working on different things, if you want to share those with me, I'd be happy to react to see what my impression is about where you are.'" – Baby Boomer</p> <p>"That sort of thing is... handled better privately. Because no one wants to be shamed in front their peers and some people realize when they screwed up and already feel bad enough. Some people will have no clue and having it brought up in front of everyone, I think is demeaning to a certain degree and not overall helpful." – Generation X</p> <p>"I think it's inappropriate to give feedback in front of others." – Millennial</p>

Table 3B. Themes per Generational Cohort, Questions 4–6

Unique to Baby Boomers (N=8)	Unique to Gen X (N=9)	Unique to Millennials (N=21)	Shared by All Generations
Question 4: Preferences for receiving feedback			
<ul style="list-style-type: none"> • Prefer positive • Private vs public, depending on circumstance <p>“I like to receive it privately if it’s bad. If it’s good, I’ll take it any way I can get it.”</p>	<ul style="list-style-type: none"> • Actionable • Framework with self-assessment • Fair feedback <p>“I like things that are actionable that I can be working on... in a closed-door space that I can kind of reflect and think and share freely like, ‘Oh, I totally get that. It’s something I’ve been working on.’ Or ‘That wasn’t on my radar, thank you for bringing that up.’”</p>	<ul style="list-style-type: none"> • Opportunity for improvement • Relationship • Safe • Expected <p>“I definitely like to receive it privately... otherwise it’s just awkward for everybody involved. And then I like the mid-rotation feedback... because then that gives me a chance to improve.”</p>	<ul style="list-style-type: none"> • Want more feedback • Face-to face • Specific • Timely <p>“Nobody gives me feedback... probably haven’t gotten feedback for 20 years... it could be that I’m missing out on some very valuable feedback.” – Baby Boomer</p> <p>“It’s sort of hard to come by as faculty to get like good honest evaluative feedback.” – Generation X</p> <p>“I think at this point just getting it at all would be a win.” – Millennial</p>
Question 5: Factors that facilitate constructive feedback			
<ul style="list-style-type: none"> • Actionable • Appreciative recipient <p>“I think she knew she wasn’t doing well and so she appreciated that someone was going to... sit down and talk about how to make things better.”</p>	<ul style="list-style-type: none"> • Recipient-initiated • Framework with self-assessment • Successful <p>“This is what I encourage students to do when I talk with them: preface it with your self-assessment of where you think your weaknesses lie.”</p>	<ul style="list-style-type: none"> • Prepared/scripted • Expected • Good insight <p>“In many respects, it has to do with how the feedback is delivered, how well you set up the feedback. So, did you prepare your environment? Did you carefully... choose the words you’re going to use?”</p>	<ul style="list-style-type: none"> • Receptive recipient • Safe environment: low stakes, nonpunitive • Relationship <p>“Those are really fun because the expectation of the mentorship role is you [are] scheduled to do this and then you know you need to get together and on a regular basis. So they bought into it. I bought into it. It’s all good.” – Baby Boomer</p> <p>“It’s always hard to know how someone’s going to take feedback and then again kind of, how do you help them grow? And how do you help them... further amplify their strengths? And then, how do you help them further modify their challenge areas? And so I think you can do that, not knowing someone very well, but I think it has a much greater risk that you’re not going to be as helpful long term.” – Generation X</p> <p>“So receptive and then also they just want to do better; they want to be better. I think they have to have that internal motivation to be better. I feel like sometimes if they’re just content with where they are that’s also challenging.” – Millennial</p>
Question 6: Barriers to providing constructive feedback			
<ul style="list-style-type: none"> • Unsuccessful • Repeat offender • Having a relationship <p>“And so it was hard, because he was someone that I knew for a long time and someone that I wanted to be successful... you want everybody to be successful, but he was like... it’s like your kid.”</p>	<ul style="list-style-type: none"> • Really struggling/extremes of performance • No relationship • Strained relationship in the future <p>“I think it’s hard without context ... and so I think it’s a lot easier to give feedback within the context of who someone is and what their kind of inherent strengths and weaknesses are, and... make sure that you’re... giving them the opportunity to grow versus doing really long-standing damage.”</p>	<ul style="list-style-type: none"> • History of taking feedback poorly • Overwhelming recipient <p>“I kind of knew that she was already very overwhelmed, and I didn’t want to add on.”</p>	<ul style="list-style-type: none"> • Defensive recipient • Content: Personality • Hurting feelings • To superior in hierarchy due to fear of retribution <p>“I worry that I’m going to say stuff that’s going to really not help them at all and it’s going to make them feel bad. And worse, it’s going to make them feel like I’m a jerk.” – Baby Boomer</p> <p>“The problem there is... I’m a senior professor, he’s an associate professor. I’m his division chief ... I think people struggle a little bit with that: ‘How can I give my division chief negative feedback, even though they’re working on my unit?’” – Baby Boomer</p> <p>“He felt very persecuted, and it was hard for me not to empathize ... it felt very like everyone’s against him, and... the emotional component was really hard to separate out too.” – Generation X</p> <p>“I wanted to give feedback to people who are older than me and have not done it because I fear that they would not take it well and because they are honestly... in more positions of power, I would worry about my job. And not just getting fired... but I would worry about some of the things that I’ve worked really hard to attain in my career.” – Millennial</p>

Table 3C. Themes per Generational Cohort, Questions 7–9

Unique to Baby Boomers (N= 8)	Unique to Gen X (N=9)	Unique to Millenals (N= 21)	Shared by All Generations
Question 7: Generational differences in giving feedback			
<ul style="list-style-type: none"> Older: abuse is caring, no complaining because it's your job Younger: complain, prefer providing written feedback Value peer's opinions most Baby Boomers don't give a lot of feedback, didn't get feedback as trainees, only received critical feedback <p>"These [older] people were born in the 20s, and you know in that environment it was kind of like, 'Look, we're all lucky to be doctors. Nobody's going to pat you on the back. You do a job.' So basically, all the news was bad news."</p>	<ul style="list-style-type: none"> Older: casual, value their experience more Younger: give gentler feedback Conflicted regarding peers: empathetic but too busy and equal experience <p>"There's not that much peer-to-peer feedback, at least in our, our area. Everyone is so pushed to the limit clinically and so stressed with so many other things, it's like the last thing that a person wants to do is like, 'I'm going to add your stress level by pointing out hey on this patient here, guess what, you totally missed their this or that!'"</p>	<ul style="list-style-type: none"> Older: Don't give feedback, unidirectional, formal, defensive Younger: need to be asked to provide feedback, give casual feedback Conflicted regarding peers: empathetic but relationship can hinder honesty <p>"When we're close in age I feel like it's easier for people to kind of think back to when they were in your position and compare."</p>	<ul style="list-style-type: none"> Younger generations only provide positive feedback Although they differ, perceptions of generational differences exist <p>"Just give it to me blunt, and don't beat around the bush ... I'm not looking for feedback all the time. I think the younger generation is looking for constant feedback, but they want it in a kinder, gentler way and they want it more specific."— Baby Boomer</p> <p>"I don't get to always directly see the feedback from kind of the younger generation to me ... if it's an evaluation ... they'll say Dr X is great, and like there's nothing super helpful in that comment. But they don't sit down and give me direct feedback."— Generation X</p> <p>"Younger generations, like people that I'd be training with in their 20s to 30s, I feel that they are more casual with how they give feedback, are more willing to weave in their sense of humor ... and are understanding that if an example of their own experience is given it needs to be concise and it cannot be like a 30-minute story about what school was like for you."— Millennial</p>
Question 8: Factors that facilitate constructive feedback			
<ul style="list-style-type: none"> Conflicted whether age matters Recipient's cultural background <p>"It's a pretty broad range of places where cultural differences make me cognizant of the fact that I may be inflicting my biases on somebody rather than giving them broadly applicable feedback."</p>	<ul style="list-style-type: none"> Age doesn't matter Learners complain more <p>"And I think you can have young physicians that are toxic, and I think you can have old physicians that are toxic, but I don't know if that's dependent on age."</p>	<ul style="list-style-type: none"> Conflicted whether age matters <p>"I really don't think age makes a difference."</p> <p>"I think it just really has to do more with probably age. And then where their level of experience is, I think comes with age. But I think it's more age."</p>	<ul style="list-style-type: none"> Hierarchy Experience in the field Relationship Recipient's personality <p>"And so, sometimes I think having a title inhibits feedback sometimes ... And people alter their behavior because of the hierarchy" — Baby Boomer.</p> <p>"Definitely thinking about junior people ... you just have to think about not age, but power." — Gen X</p> <p>"I struggle to give feedback to people who are older, because 1, they're in a position of power and I'm worried about how that would be taken, and 2, I've seen just from ... small examples of other people giving them feedback that it hasn't gone well." — Millennial</p>
Question 9: The purpose of feedback			
<ul style="list-style-type: none"> To have a successful career <p>"So they can be successful in their careers and feel good about it."</p>	<ul style="list-style-type: none"> To grow and develop To provide critique and point out the positives Part of the education process <p>"I think if anything we're harder on ourselves than anyone else ever is by and large, and I think, having somebody come in and say 'no, you're actually doing okay and you're actually doing a good job' can go a long way to just relieving your own internal anxieties."</p>	<ul style="list-style-type: none"> To provide new insight <p>"I can't see how people are perceiving me, and so the only way I'll know is if someone tells me."</p>	<ul style="list-style-type: none"> To improve <p>"The purpose is to get us to the right place. So you know in development, some of the faculty development and other courses we've had, I've always kind of liked the analogy you're looking at a map and you want to go from one place to the other and if you're going the wrong way, it's pretty nice to get tapped on the back and said 'you got to re-correct and get there.'" — Baby Boomer</p> <p>"The simple answer to me is because we all want to be better ... the point is we're trying to take care of patients and we're trying to take care of families and the point of this is to make ourselves as optimally suited to do that job as we can." — Generation X</p> <p>"To make you a better physician ... To build and create great physicians who then pass it down to the next generation ... because it's like an apprenticeship." — Millennial</p>

DISCUSSION

In this qualitative study examining potential generational differences in feedback practices and preferences, we found themes unique to each generation. Different generational cohorts also demonstrated differing perspectives on what older or younger colleagues perceive as effective feedback practices, suggesting that subconscious consideration of one's age may play a role in the feedback process. Importantly, all generations emphasized certain characteristics of effective feedback, highlighted the importance of relationships, and alluded to the influence of hierarchy.

Shared themes about effective feedback practices across generational groups reinforce that effective feedback is specific, timely, and growth oriented.¹ Each generation also shared unique experiences of ineffective feedback. For example, participants agreed that feedback should never be humiliating or punitive but differed on whether public feedback was appropriate. Interestingly, our results supported some previously held assumptions about generational cohorts in the workplace, but not all. For instance, Baby Boomers have been described as achievement oriented, correlating with a shared theme that they believe the purpose of feedback is to promote a successful career. However, although they are often described as competitive, the Baby Boomer cohort in this study shared a theme of discomfort with giving critical feedback.

Similarly, Generation X participants shared a theme of considering personal circumstances when giving feedback, which parallels their previously described concern with work-life balance. We did not find that Millennials were unique in their use of technology; rather, the Baby Boomer cohort was unique in not mentioning technology as a tool for providing feedback. This finding contributes to the literature acknowledging the potential utility of Generational Cohort Theory while also questioning its dogmatic application.^{11,23}

Although the relationship between the feedback giver and recipient was not originally described as a hallmark of effective feedback practice, it is now recognized as an important component of the feedback process, and our results confirm this.^{1,33,34} Each cohort recognized that relationships between the giver and receiver affected how feedback was internalized and perceived as valid. The potential negative impact of relationships—such as impeding honesty in ways that may impair the relationship—was universally recognized. Methods that support an alliance between the feedback giver and recipient should be strongly considered by medical educators to strengthen relationships and, consequently, improve feedback effectiveness.^{4,35}

The influence of hierarchy on feedback was a theme that, while not surprising, is not well delineated in current literature.³⁶ It was recognized by all participants that providing honest, critical feedback to someone higher in the hierarchy is difficult. Hierarchical power differentials also contributed to unhelpful feedback practices. For example, the use of anonymous written feedback was described as safe but often resulted in feedback with undesirable

characteristics, such as being vague, lacking face-to-face interaction, and precluding dialogue).

Known limitations of Generational Cohort Theory also emerged and were not unique to our analysis. Inherent to generational cohort research, we found that career stage and age closely parallel one another.²³ Older individuals typically hold more advanced/senior roles in the workplace. Participants often referred to “younger” persons and “learners” synonymously, as well as “older” individuals and “senior attending physicians” interchangeably. Although this makes absolute distinction between generational characteristics and career seniority difficult, each generational cohort in our study included attending physicians with varied years of practice, allowing unique generational feedback practices and preferences to emerge. In real-world settings, encountering outliers—such as a Baby Boomer medical student or Millennial senior attending—is exceedingly rare, making such distinctions esoteric.

Limitations

Our study has several limitations. As with any Constructivist Grounded Theory approach, findings may be influenced by author assumptions and biases. Although standard interview questions were used, interviewers employed variable follow-up prompts, which may have influenced responses. Despite efforts to avoid evaluative relationships between participants and interviewers, author leadership roles, prior working relationships, or fear of loss of anonymity when commenting on potential colleagues may have affected participants' responses.

Because the study focused on generational differences, thematic analysis was limited to comparisons across generational cohorts. Although further analysis by stage of training, career stage, or demographic factors such as gender would be valuable, a larger sample would be necessary to support such comparisons.

Although all generational cohorts were represented, the Millennial cohort was over-represented, responding more quickly to invitations to participate. This may reflect a greater recent emphasis on the importance of feedback and medical education, or greater availability of time earlier in training or career. The predominance of pediatricians may reflect the authors' specialties or the unprecedented clinical workload placed on adult-focused physicians during the COVID-19 pandemic. Second- and third-round recruitment efforts improved participation from adult-focused physicians but did not fully mitigate this imbalance. Interviews were conducted over 17 months to allow recruitment across generations and in response to pandemic-related disruptions to clinical duties and interpersonal interactions.

The higher proportion of females and self-identified ethnic minority participants in the Millennial cohort may reflect ongoing efforts to increase diversity in medicine or hesitancy among other generations to self-identify graphic characteristics (Table 2). Finally, although this was a single-institution study, participants' feedback occurred across multiple institutions.

Implications

Our findings suggest actionable next steps to improve feedback practices at both individual and systems levels. Efforts to foster relationships between evaluators and learners may improve feedback effectiveness and potentially mitigate the negative impact of hierarchy. Facilitating longitudinal relationships throughout medical training that include clear expectations for evaluation may be optimal but would require changes to clinical scheduling practices and increased support for mentorship programs. Identifying strategies to de-emphasize feedback requirements or align expectations during short-term learners-educator interactions may also help address differing preferences. Finally, ongoing faculty development that emphasizes the hallmarks of effective and ineffective feedback, while acknowledging generational differences as a component of relationship-building, may further strengthen feedback practices.

CONCLUSIONS

Generational cohorts report distinct perceptions and preferences regarding feedback in medical education, while important commonalities exist across all generations. Relationships and one's position within the medical hierarchy play a significant role in how individuals accept and provide feedback. Medical educators may use these findings to more effectively navigate the current multigenerational educational environment.

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