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ORIGINAL RESEARCH

The elephant in the room: a mixed-methods study of remediation perceptions across resident physicians, teaching faculty, and program directors

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Abstract

Background: Remediation in postgraduate medical education (PGME) is a complex, high-stakes endeavor. Studies have examined learner perspectives, but few have explored those of program directors and teaching faculty. We explored the perceptions and experiences of remediation from the perspectives of program directors (PDs), teaching faculty (TF), and resident physicians (RPs).

Methods: We used an explanatory sequential-mixed methods design underpinned by pragmatism, combining survey data with semi-structured, one-on-one interviews conducted with 17 participants purposively recruited from survey respondents. Data were collected between 2021-2023 and analyzed in 2024. Interviews were transcribed verbatim and coded in duplicate by at least two team members. Discrepancies were discussed in regular meetings until consensus was reached.

Results: A total of 252 participants completed the survey, with response rates ranging from 3% to 37% across participant groups. We identified five themes: stigma, compassion, complexity, perfectionism culture, and peer support. Limited confidence by PDs and TF perpetuated the stigma of remediation and RPs reported remediation rarely being discussed. Participants also highlighted that substantial time and effort required for remediation goes unacknowledged, with limited resources and support for faculty involved in these processes.

Conclusions: Remediation in postgraduate medical education is shaped by shared experiences of stigma, complexity, and resource constraints, but also by a strong commitment to learner growth. Addressing these challenges will require action at individual, program, and system levels.

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Le sujet tabou : une étude utilisant des méthodes mixtes sur les perceptions de la remédiation chez les médecins résidents, les enseignants et les directeurs de programme

Résumé

Contexte : La remédiation dans la formation médicale postdoctorale (FMPD) est une démarche complexe aux enjeux importants. Des études ont examiné le point de vue des apprenants, mais rares sont celles qui se sont penchées sur celui des directeurs de programme et des enseignants. Nous avons exploré les perceptions et les expériences de la remédiation du point de vue des directeurs de programme (DP), des enseignants (E) et des médecins résidents (MR).

Méthodes : Nous avons utilisé un devis mixte séquentiel explicatif, fondé sur le pragmatisme, combinant des données d'enquête avec des entretiens semi-structurés en tête-à-tête menés auprès de 17 participants recrutés de manière raisonnée parmi les répondants à l'enquête. Les données ont été collectées entre 2021 et 2023 et analysées en 2024. Les entretiens ont été transcrits mot pour mot et codés en double par au moins deux membres de l'équipe. Les divergences ont fait l'objet de discussions lors de réunions régulières jusqu'à ce qu'un consensus soit atteint.

Résultats : Au total, 252 participants ont répondu à l'enquête, avec des taux de réponse variant de 3 % à 37 % selon les groupes de participants. Nous avons identifié 5 thèmes : la stigmatisation, la compassion, la complexité, la culture du perfectionnisme et le soutien par les pairs. La confiance limitée des directeurs de programme (DP) et des enseignants (TF) a perpétué la stigmatisation liée à la remédiation, et les médecins résidents (MR) ont indiqué que la remédiation était rarement abordée. Les participants ont également souligné que le temps et les efforts considérables requis pour la remédiation ne sont pas reconnus, les ressources et le soutien accordés aux enseignants impliqués dans ces processus étant limités.

Conclusions : La remédiation dans la formation médicale postdoctorale est façonnée par des expériences communes de stigmatisation, de complexité et de contraintes en matière de ressources, mais aussi par un engagement fort en faveur du développement des apprenants. Pour relever ces défis, des mesures devront être prises aux niveaux individuel, des programmes et du système.

Introduction

Remediation in medical education is a complex and high-stakes process, that involves parties of interest of diverse knowledge, skills, and attitudes.[1] While remediation is increasingly common, our understanding of its complexity remains limited.[2–4] In part, this is due to the culture of medical training but also how the conceptualization and execution of remediation are different for every learner. For example, in each remediation scenario, complexity arises at the micro- (individual learner), meso- (residency program and institution), and macro- (system) levels of medical education. These contextual features in turn moderate knowledge, skills, and attitudes around remediation.[5,6] Such variability spans across institutions with each academic medical institution and residency program maintaining differing approaches and processes for the remediation of residents.

In the literature, remediation is variably defined and insufficiently studied. Evidence-based recommendations are scarce, and most guidance remains expert-level opinion.[7,8] This is concerning, given that

the literature that does exist has identified shame and bias as being interwoven in the experiences of learners and perceptions of remediation.[9,10] Residents, key parties of interest in the process, report remediation as stressful, high-stakes, and shameful.[9,10] A recent qualitative study of resident perspectives called for change in institutional normalization of struggles and improved transparency of processes, key components of improving stigma.[10] Despite the depth and breadth of research into learner perspectives, the understanding of stigma, shame, and perspectives of other key parties of interest, for example, Program Directors and teaching faculty, remains unknown and the elephant in the room.

Although emotions around remediation are recognized, the impact of how emotions can be used positively in remediation has not been studied.[3] Recent work by Castanelli et al. demonstrated how underperformance creates a stigmatized identity rather than being a temporary developmental stage.[11] The authors make suggestions regarding psychological safety, compassion, transparent practices, and faculty development as countermeasures for undermined learning and negative professional labeling.[11]

How do we address such important issues, when our understanding of how remediation is experienced at the individual, program, and systems levels remains incomplete? The purpose of this study was to explore the perceptions and experiences of remediation from the perspectives of Program Directors (PDs), Teaching Faculty (TF), and Resident Physicians (RP), including their knowledge, skills, and attitudes using an explanatory sequential mixed-methods study design.

Methods

This explanatory sequential mixed-methods study[12] is underpinned by pragmatism. Pragmatism recognizes the integration of quantitative and qualitative methods and utilizes the strengths of both to answer the research question.[13] We collected quantitative data using a cross-sectional survey of PDs, TF, and RPs at one Canadian academic medical teaching institution from 2021-2022. The institution has 65 residency programs with approximately 850 residency-funded positions per year. Individual Program Competence Committees or Residency Training Committees determine if remediation is required according to policy. A committee at PGME reviews and provides oversight of all remediation plans, ensuring fairness and alignment with policies and procedures. The study was approved by the institutional research ethics review board (REB21-0287). We obtained informed consent from all participants.

The survey included 27 items for PDs, 27 for TF, and 24 for RPs, covering demographics and knowledge, skills, and attitudes about remediation. RPs were included regardless of personal remediation history, as the study assessed knowledge, skills, and attitudes across all parties of interest. Our questions were developed *de novo* and based on the work of Steinert (2013)[1] (Supplemental File 1). No existing instrument covered these domains and the survey was not piloted prior to distribution. Figure 1 depicts our conceptual framework considering the domains of the survey and interview guide and depicts the micro, meso, and macro levels of residency education. We sent the surveys electronically via email and participants completed them via Qualtrics. We analyzed quantitative data using descriptive statistics with SPSS and qualitative data using NVivo (version 14). We collected quantitative survey data first. We collected qualitative interview data after survey data collection was complete, drawing on consenting survey respondents.

For the qualitative component, we purposively recruited participants who completed the survey to conduct semi-structured, one-on-one interviews, representing a convenience sample. We conducted these virtually in 2022-2023 and transcribed them verbatim. Interview questions were not piloted. Once survey and interview data collection were both complete, we analyzed each dataset individually before comparing themes across the two. (Supplemental File 2) Transcripts were then analyzed for themes in duplicate by at least two of the co-authors. Quantitative survey results and qualitative data, including interviews and free-text survey responses, were integrated for convergent and divergent findings. Using an iterative comparative pro-

cess, we applied Braun and Clark's six phases of thematic analysis: 1) data familiarization, 2) generation of initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the final themes.[14] Research team members independently analyzed the data before engaging in reflexive discussions to compare codes, resolve discrepancies and finalize themes. Themes were iteratively refined and explored alongside the quantitative findings to strengthen overall interpretation of the results. The authors met regularly to discuss how findings from the quantitative and qualitative phases complemented, converged, and diverged from each other. Comparing the initial framework (Figure 1) with the integrated themes, we developed a revised conceptual framework reflecting the nuances that our findings revealed.

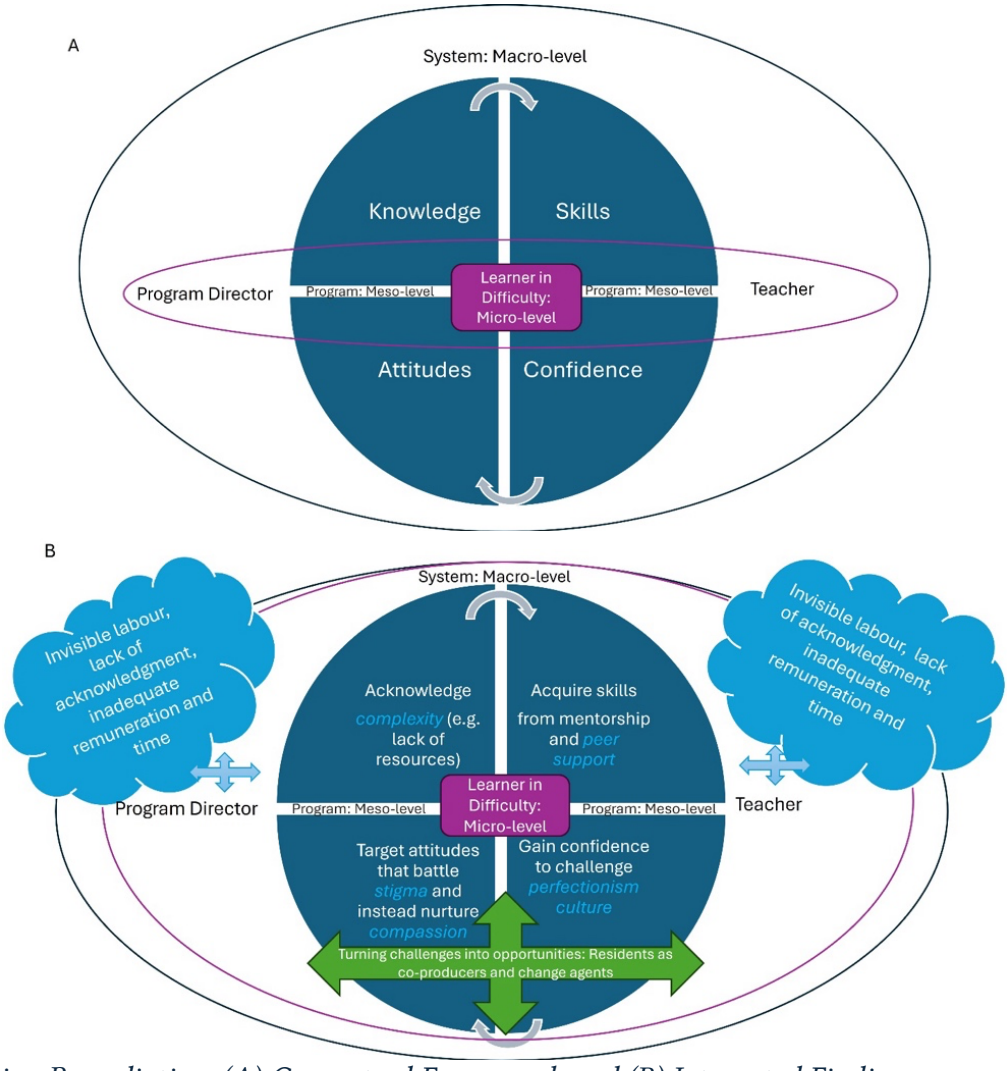


Figure 1. Addressing Remediation. (A) Conceptual Framework and (B) Integrated Findings

Reflexivity and rigor

We attended to rigor throughout all phases of the study. For quantitative data, sources of bias and limitations were considered such as how the identities of the research team members who were physicians versus those who are not could influence the results. For qualitative data, we considered credibility, transferability, dependability, confirmability and reflexivity.[15] To capture a broad range of perspectives, when sampling, participant diversity was sought (e.g. residents, program directors and teachers across residency programs with differing years of experience). During analysis, complimentary and contrasting interpretations were explored.[16] Duplicate coding by at least two members and reflexive discussion to resolve discrepancies supported credibility. The detailed description of our single-institution context allows the readers to assess transferability. The reflexive statements below along with team discussions of their interpretations support confirmability and reflexivity. We also remained reflexive as to how our intersecting identities may have impacted our analysis of the data. For example, AM is a first-generation immigrant and cisgender woman whose experience informs her interpretive attention to stigma in this study. She also holds a leadership role in postgraduate medical education remediation, which shapes her prior assumptions about learner difficulty. EW is a cisgender woman with a master's degree in adult education and a non-clinician role in postgraduate medical education, where she supports residents experiencing difficulty. Her adult learning background informs her attention to learning processes, remediation structures, and the supports available to learners. LH is a racialized physician and medical educator. She has held several leadership positions in medical education. These experiences have shaped an appreciation for the complexity of educational systems and the value of multiple perspectives in understanding educational phenomena. AK is a racialized cisgender woman who contributed her research expertise in non-clinical medical education and neurodiversity which is also grounded in lived experiences of stigma and discrimination.

Results

Below, we present the results of this study in two parts, reflecting the mixed-methods design. Quantitative findings from the survey are reported first, describing participant demographics and self-reported experience, confidence, knowledge, and skills related to remediation. We then present the qualitative findings. We have organized these into three sections reflecting the distinct roles of each group: themes common to all participants, themes specific to PDs and TF, and themes specific to RPs alone. This structure allows comparison across groups while preserving each group's unique perspective.Demographic characteristics of survey participants are shown in Table 1. A total of 252 survey respondents were comprised of 29 (37% of 78) PDs, 162 (3% of 6000) TF, and 61 (7% of 825) RPs.

Table 1. Participant demographics, and self-reported confidence, skills, and knowledge in addressing remediation

	Program Directors *N* (%)	Teaching Faculty *N* (%)	Residents *N* (%)
Gender identity			
Identifies as a man	14 (48.3)	82 (50.6)	14 (23.0)
Identifies as a woman	14 (48.3)	69 (42.6)	41(67.2)
I prefer not to answer	1 (3.4)	3 (1.9)	3 (4.9)
No response	0	8 (4.9)	3 (4.9)
Visible Minority	6 (21.0)	43 (26.5)	11(18.0)
Disability	8 (27.6)	41 (25.3)	35 (57.3)
Training in managing residents in difficulty			
None	6 (20.7)	67 (41.4)	-
Some	16 (55.1)	50 (30.9)	-
Area of Expertise	1 (3.4)	9 (5.6)	-
Experience working with residents in difficulty			
None	1 (3.4)	3 (1.9)	-
Little	7 (24.1)	51 (31.5)	-
Some	11 (37.9)	50 (30.9)	-
Significant	4 (13.8)	22 (13.6)	-
Confidence working with residents in difficulty			
Not Confident	6 (20.7)	41 (25.3)	-
Somewhat Confident	13 (44.8)	65 (40.1)	-
Confident	4 (13.8)	15 (9.3)	-
Received information about remediation and learning supports			
None	-	-	25 (41.0)
Some	-	-	14 (23.0)
No Response	-	-	22 (36.0)

Participant characteristics and self-reported experience

Participant demographics and self-reported experience, confidence, knowledge, and skills in addressing remediation are summarized in Table 1. Among PDs (n = 29), there was an equal distribution of gender, 21.0% identifying as a visible minority, and 27.6% reporting a diagnosed or professionally treated health-related condition. While most PDs reported at least some training working with residents in difficulty (55.1%), many (20.7%) reported no formal training. Just over half (51.7%) reported some or significant experience working with residents in academic difficulty, yet few (13.8%) reported feeling confident in this role.

TF (n = 162) showed similar demographics in terms of reported gender, visible minority, and disability as PDs. Compared with PDs, a larger proportion of TF reported no training related to residents in difficulty (41.4%), despite reporting significant or some experience working with struggling residents (13.6% and 30.9% respectively). Confidence in working with residents in academic difficulty remained limited (25.3% not confident).

RPs (n = 61) differed notably from PDs and TF in reported demographics. More RPs identified as women (67.2%) and fewer as men (23.0%), with a higher proportion reporting a diagnosed or professionally treated health-related condition (57.3%). The proportion identifying as a visible minority was similar (18.0%) to the other groups. With respect to participants having had discussions during their training about learning supports and remediation, 41.0% participants reported no discussion, 23.0% reported some discussion, and 36.0% did not respond.

Qualitative analysis

We conducted 17 interviews (n = 6 PDs, n = 6 TF and n = 5 RPs). Fifteen participants identified as women and the remaining two identified as men who were both program directors. Several themes discussed by participants from all groups were similar, though perspectives varied. Free-text survey responses were congruent with the interview data. Table 2 displays the over-arching themes and supporting quotes across all three participant groups.

1. Common themes across program directors, teaching faculty, and residents

1.1 Stigma and bias as a wicked problem. Participants frequently mentioned stigma and bias when discussing remediation. The complex, multifaceted, and evolving challenges surrounding stigma and bias suggest it is a wicked problem, lacking straightforward solutions.

Participants highlighted that when a learner is struggling, faculty "will often talk to other faculty members and actually poison the environment" (PD-03). This unintended consequence of forward-feeding results in exacerbating the difficulty for the learner as they must now navigate both correcting a real performance gap, perceived reputational harm, and a prejudiced learning environment. Concurrently, the PDs are tasked with helping the resident with their individual difficulties and remediating the learning environment in which the high-stakes assessments must occur. The identification of unbiased assessors for remediation was felt to be particularly difficult when faculty have had prior negative experiences with the learner, a concern felt to be especially salient when difficulties lie in the professional domain.

Stigma, shame, and the hidden curriculum were identified as significant barriers to the effective implementation of individualized supports. Participants described how labels identifying individual residents as different were stigmatizing. "[I]t really alienates you from your group of peers" (R-01). However, avoiding those labels, leads to residents not getting the timely supports they need or being advanced to the next stage of training despite being unprepared, which further widens the learning gap.

RPs also reported feelings of shame associated with failure and highlighted the hidden curriculum in which struggling learners are viewed negatively

outside the formal educational environments. These attitudes among fellow learners, teachers, and program directors lead to hesitation in the implementation of remediation, delaying necessary interventions. "I feel like it [remediation] needs to be really something that is a last resort" (R-01). Participants spoke about the "program being quite competitive," (TF-3), and that "there's unspoken messages that you're supposed to pass everything, you're supposed to be good at everything," (PD-02).

Participants recognized positive change in the form of policy development, specifically in the realm of safe learning environments, and the evolution of medical education even if bias, itself was recognized as impossible to eliminate completely.

Table 2. Common themes in remediation identified by program directors, teaching faculty, and residents.

Themes	Quote
Stigma and bias are a wicked problem	*PD-04: I think the label can follow people for a long time, even once you're past that remediation or learning support period.* *PD-04: They're usually not somebody that people want to work with because it's more time, more effort, more supervision.* *PD-06: the label of whether it's a struggling resident in difficulty, in remediation, on probation, on leave, whatever is going on with them. Even though it's all meant to be helpful, the labels, I think, can cause some stigma. The same thing just in terms of that label of if somebody is a PGY3 and they learn that they're going to stay as a PGY3. Then the stigma of not having just gone through the motions of just moving on to the next PGY year.* *TF-03: So the expectation is that they'll continue to be successful. So because of that, maybe there is some limitations for the residents to be more upfront about academic deficiencies.* *TF-04: I think one of the biggest resources that we're lacking is trying to provide a so-called clean slate for someone to be assessed not in the lens of some difficulties they've had before.* *R-01: There's a lot more processes in place now in terms of harassment of learners, ensuring learners are more supported and I think CBE, itself, is like a really good you know, mode of assessing learners that is a lot a lot less biased.* *R-04: the offhand comments that you can hear at the lunch table, at the team meeting, at the whatever small group session that you've got. These people are not always spoken about with kindness.*
Compassion is a universal value	*PD-01: sometimes people want to give learners the benefit of the doubt. So, "Oh, that was a bad day. We won't document that one." It's easier to give good feedback than bad feedback* *TF-04: I feel like fundamentally we all got here because we are intelligent and hard-working and have our heart in the right place. So I feel like when someone is having difficulty. There's there's usually another reason. Maybe it's stress. Maybe it's confidence. Maybe it's depression. … is there anything else that's in your life that you need for us to just address?* *R-03: I think my heart goes out to them because residency is really difficult.*
Inconsistency adds complexity and challenges effectiveness of remediation	*PD-03: And when it comes to EPAs, of course, the trainees are going to pick the easy people that are going to give them good reports rather than maybe the stricter ones that would be able to really give them some good feedback.* *TF-02: It creates anxiety in the perception, the belief, that the rules can be inconsistently – the perception that the rules can be altered and inconsistently applied and therefore anyone and everyone is vulnerable. So there is a pressure to have group think and not speak up and not support somebody who might be treated unfairly.* *R-01: So essentially, I failed one rotation, and I was told I need to go into remediation. Previous learners who had failed one rotation had the option to redo the rotation, instead of going into remediation.*
Perfectionism in medical culture has multiple deleterious effects on remediation	*PD-02: there's unspoken messages that you're supposed to pass everything, you're supposed to be good at everything, you're supposed to do everything, that superhero myth.* *TF-05: there is absolutely in medical culture that sort of sense of needing to succeed and if you fail, then you're a failure.* *R-01: I think once people are in their remediation stage, I think it's much harder to be in that mindset of being that growth mindset.*
Peer support and mentorship would be appreciated at all levels.	*PD-04: So I think if there was some sort of community for learners in difficulty, not only peer-to-peer but also faculty who are now past all of that working and they could see themselves in that. I think it would be huge.* *PD-01: One is a mentorship group of program directors or other educators that have gone through it, so that they could provide advice or be a sounding board for work in progress.* *R-03: challenges are really common in residency. And just making it more of a norm to be able to acknowledge those is really just a healthy way to cope with the difficulties we experience.*

1.2 Compassion is a universal value. "My heart goes out to them because residency is really difficult" (R-03). Participants consistently expressed an understanding that undergoing remediation is an emotionally challenging experience for learners, often associated with feelings of shame, isolation, and stress. There was a shared desire, in different ways, to help alleviate these negative emotions, demonstrating universal compassion amongst the three groups.

At times, compassion led to describing observed maladaptive or avoidant behaviors such as delaying, avoiding, or softening feedback, hesitation in reporting or documenting concerns, and delaying effective interventions. One PD stated that "sometimes people want to give learners the benefit of the doubt" (PD-01).

Conversely, compassion also motivated more constructive behaviors. Participants described exploring contextual and systemic contributors to the struggles in attempts to address concerns in a more holistic and learner-centred way by asking "is there anything else that's in your life that you need for us to just address" (TF-04).

1.3 Inconsistency adds complexity and challenges effectiveness of remediation. Participants identified perceived inconsistency as a barrier to effective remediation. Inconsistency in feedback delivery and individual differences in assessment standards make it difficult for PDs to determine who is struggling. This leads to the perception that "trainees are going to pick the easy people that are going to give them good reports rather than maybe the stricter ones that would be able to really give them some good feedback" (PD-03).

Participants also remarked that inconsistently applied policies and procedures create anxiety, "the perception that the rules can be altered and inconsistently applied and therefore anyone and everyone is vulnerable [to being placed on remediation]" (TF-02). This perceived lack of procedural fairness creates a culture of hesitancy, where faculty are reluctant to flag concerns or initiate formal processes for fear of initiating an unclear or unevenly enforced framework.

The effectiveness of remediation was recognized by all three groups of participants as dependent on an interplay of individual, contextual, and systemic factors. PDs and TF reported seeing residents with struggles have relapses in difficulties, particularly with recurring stressors. Others described differences in the types of struggles as being, in their experience, amenable to remediation and assessment. Struggles with factual knowledge or procedural tasks were generally perceived as easier to remediate and assess, while difficulties in areas such as professionalism, communication, or clinical judgment were viewed as more complex, subjective, and resistant to quick resolution. These differences affect not only the design of remediation plans but also educators' confidence in their ability to assess progress and determine readiness for advancement.

RPs described struggling to understand why certain decisions were being made and why outcomes appeared to differ for other residents in seemingly similar circumstances. From the resident perspective, this lack of transparency and consistency in decision-making led to confusion and perceived arbitrariness fueling feelings of unfairness and erosion of trust.

1.4 Perfectionism in medical culture has multiple deleterious effects on remediation. "You're either successful or you're a failure" (TF-05). Participants in all groups referred to a prevailing culture of perfectionism affecting learner and faculty perspectives of remediation which was a strict binary without room for nuance in learning or maintaining a growth mindset. PDs described medical culture as perfectionistic and perfectionism as a barrier to residents being able to accept struggles. Even in the context of low stakes feedback and coaching, learners often avoid exposing weakness. One PD noted, "often they don't ask for an EPA unless they have already mastered it" (PD-03). If learners, and teachers, are not accustomed to discussing constructive feedback on an ongoing basis, it then becomes an unexpected and atypical occurrence to suddenly come across feedback that is less than perfect. "They

expect to have the highest ranking ... When they don't, they're unhappy" (PD-03).

TF acknowledged that the medical culture labels residents who struggle as a "failure… and it kind of sticks with them even if they're no longer struggling" (TF-05). The knowledge that this kind of attitude towards learners prevails, makes teachers hesitate to bring forward concerns or suggest remedial interventions, hoping that the situation will self-resolve on its own with time.

In a culture of perfectionism, remediation itself can alter the learner perspective of learning. Instead of fostering self-reflection and growth, it can trigger defensive reactions and reinforce a sense of failure in the learner. RPs reported a high-stakes element to remediation that negatively affected growth mindset. "It's much more a fight or flight kind of situation at that point" (R-01).

1.5 Peer support and mentorship would be appreciated at all levels. Participants across all groups discussed the importance of mentorship at all levels, including for residents in difficulty, for new PDs, and for TF working with residents who are struggling. Participants also identified barriers to mentorship including time commitment, difficulty finding individuals willing to talk about struggles in medicine, and lack of availability of such resources.

PDs discussed that mentorship for residents would reduce stigma, would normalize struggles, might decrease isolation, and could provide residents with examples from peers or near-peers of what worked well. Mentorship for faculty and early career PDs was discussed as providing a community of practice and emotional support in approaching new and challenging learning difficulties.

RPs acknowledged that "everyone, I think, will struggle at some point... And I think being able to share your own struggles just normalizes it" (R-03). Other participants suggested that observed success in those who have encountered struggles could decrease isolation, self-doubt, and shift the emotional responses towards a growth mindset.

2. Common themes across program directors and teaching faculty

Table 3 displays the over-arching themes and supporting quotes across these two participant groups.

2.1 Invisible labour is a consequence of insufficient acknowledgement and remuneration. Teaching, supporting, and assessing learners in difficulty requires expert skills and dedicated time. The success of remediation is dependent, in part, on developing rigorous plans. When discussing accounting for time spent on this type of work, PDs endorsed that there is a lack of direct reporting sys--ems and clarity about where this type of reporting is submitted. TF were confident that there were few opportunities to report their time and have their work acknowledged.

The lack of remuneration and recognition was identified as both a barrier to people pursuing medical education as a career goal and an opportunity for an organizational and systemic shift to value more highly time spent teaching. Teaching faculty described this concern in the context of physicians' role in training future generations of doctors responsible for the care of Canadian society, emphasizing what one participant characterized as the "need to pivot from [teaching] being an ethical responsibility to actually paid positions and that's a huge fundamental pivot" (TF-04).

Table 3. Common challenges and opportunities to remediation identified by program directors, teaching faculty

Themes	Quote
Invisible labour is a consequence of insufficient acknowledgement and remuneration	*PD-04: I think when you're reporting, I guess, your yearly kind of things you've done in education, there's probably an opportunity and a place to specifically say you worked with a learner in difficulty.* *TF-02: So much teaching is unpaid for and unaccounted for. When you go over and above for a resident in difficulty, it just comes down to you. What are you willing to volunteer? There's no credit for it.* *TF-05: I think that sometimes is a barrier to why people don't want to go into higher levels of medical education is that it's generally known to be something that's not super well remunerated and takes up a lot of time relatively to the compensation at higher levels that you get.* *TF-03: I think it's, unfortunately, a little bit of a lost hope to say that you expect faculty members to continue to just volunteer all their time to managing and teaching residents, especially challenged residents, with no support. It's a volunteer job and there's only so much volunteer work you can give.*
Time and resource constraints as barriers to quality remediation	*PD-01: The more that's taken up by the teaching work, the less there frankly is to pay as much attention to different patient needs. Even if that isn't taking directly from the patient time, that's then taking from the preceptors normally out-of-work time which is necessary for them to be healthy healthcare providers and to do their best jobs. So I do think that there is a cost. Hopefully, it's not great, and hopefully the time that's invested pays off in a more competent health care workforce down the line.* *TF-05: And then you have to figure out, am I going to dedicate all of this time to this when I'm already working so much? Or how do I figure out supports and resources and what are the avenues and strategies in place? I think that's the thing and I think when I think about other colleagues I've had or learners I've seen where they're not doing well but people don't want to address it, I think those are a lot of the barriers. They're tough conversations, they take time, they take follow-up and they're not pleasant, necessarily, tasks.*

2.2 Time and resource constraints as barriers to quality remediation. PDs and TF emphasized the need for accessible resources that learners can use independently to address learning gaps. They also highlighted the importance of resources for faculty, both to improve early identification of learners in difficulty and to support specific educational needs.

Participants acknowledged that professional development resources, when they exist, are usually accessed by those already interested in education, and are accessed on a volunteer basis. A major barrier identified to this was time: "it's hard, I think, to mandate people do courses to be better educators or be more consistent in their evaluations when it's literally them volunteering time" (TF-04).

PDs identified human resource challenges when matching residents in difficulty with appropriate mentors and faculty who are skilled at teaching residents experiencing learning gaps: "Those individuals are hard to access, especially good ones or they're already busy and I find we're always drawing on that same pool of people" (PD-04).

Many acknowledged that supporting residents in difficulty requires significant time investment, which can come at the expense of patient care, teaching other learners, or personal time. One TF described the ethical tension in deciding whether to assume responsibility for a resident in difficulty, given the competing demands on time and resources.

3. Identified theme by residents alone

Only one theme was unique to RPs. Table 4 displays the supporting quotes for the theme specific to this participant group.

3.1 Challenges and opportunities in implementing remediation. While the theme of poor implementation was recurrent, these were highlighted as opportunities for change in the remediation process. Several participants emphasized that support was provided only after significant challenges had already occurred, rather than being proactive: "I would hope that if the need for remediation came up, it would hopefully be identified early on in the process where my learning gaps were just starting" (R-03).

Table 4. Challenges and opportunities to remediation identified by residents alone

Themes	Quote
Challenges and opportunities in implementing remediation	*R-06: The conversation that we had was, let's just forget about it and move on, were my PD's words. And so I said, OK, I'm prepared to do that. So let's just pull it together and move on. And then after that, that was when it was like, OK, so now here is an SLP [sic] to help address your learning needs. And I was like, great. I've been asking for support for months. This will be fantastic. I'm very much looking forward to having some very targeted and specific ways to augment and improve and approach my learning. And it has not – and I think so this part was all a very quick turnaround I think the SLP [sic] has been provided and implemented and instituted, it's not informal. And it is very rigorous and very involved with basically everybody in my program being aware of this. And so again, I don't – I have no problem telling people about the things I am working on. It's just been a disaster of implementation.* *R-03: I would hope that if the need for remediation came up, it would hopefully be identified early on in the process where my learning gaps were just starting. So that way, either proactively we could work on things during that rotation just to make sure that I caught up or didn't fall too far behind. And that way, looking forward, a plan could be put in place in terms of when it would be best to remediate that block. And how to limit the damage or stress to other people involved. And then maybe just involving the chiefs of the other blocks early, just so that they kind of had some input into how some kind of an agreement could be made that would benefit everyone best.* *R-04: Right now, I'm like full-on survival mode of trying to make it through this program. And so it's something that I'm very interested in. I want to be a part of a change. Because nobody deserves to be on the receiving end of something like this where there's insufficient support. Nobody deserves – and I'm not saying that I don't need to learn. I do. I want to learn. I do need to learn. I want support to be able to do that but the implementation and the institution of this has been very challenging.* *R-01: For instance, if you needed additional support a rotation, they could work with you to organize that rotation at a certain time in your in your schedule, or work with you to gain more exposure in that field, outside of your regular registration. And I think that's something that I've heard other programs to be able to offer learners. Or to change their schedule so that they have more experience under their belts when they're going through what's deemed to be a harder rotation, for instance. I do think that the program director and the program itself has a much more ability to make sure that the learners succeed. In that way, I think the process could be, I guess, more equitable. Not equal, but more, I guess, based on needs of the learners.*

One RP described a learning support plan as rigorous but poorly executed, leading to unintended consequences such as lack of confidentiality for the resident. The broader implication was that institutional processes could inadvertently amplify stigma through poor communication or lack of discretion.

All RPs voiced a desire for more individualized, needs-based support. Program-level flexibility, such as schedule adjustments or targeted clinical exposure, to support learners through difficult periods, was suggested. RPs suggested that remediation plans should be co-designed and co-produced with residents to maximize benefit. There was a willingness for residents to effect positive change to avoid future residents having to struggle through residency:

> *Right now, I'm like full-on survival mode of trying to make it through this program. And so it's something that I'm very interested in. I want to be a part of a change. Because nobody deserves to be on the receiving end of something like this where there's insufficient support.* (R-04)

Integration of findings

Survey and interview findings were convergent across all three groups. Convergence of findings were shown with the frequency of reported confidence by PDs and TF (60% for both groups reporting not being confident or only somewhat confident in dealing with remediation) which triangulated with the nearly 60% of RPs reporting that remediation was not discussed or only somewhat discussed. These quantitative findings were supported by the themes found from the interviews around stigma and bias as a wicked problem, the need for compassion, peer support, and mentorship. Our quantitative findings of the lack of confidence by PDs and TF were also supported by the themes specific to these groups which were *time and resource barriers*

and *insufficient training and remuneration* which can be triangulated with RPs unique theme of *challenges and opportunities for implementation* of remediation. Figure 1B shows an integration of the themes within a revised conceptual framework compared to the one with which we began at the start of the study. The common themes across all groups are shown at the centre of the circle representing systemic and structural issues of remediation. TF and PD's common themes of insufficient time, acknowledgment, and resources have impact on the broader system of residency training and patient care as well as the resident. While residents alone see the implementation challenges as an opportunity for co-production and positive change aligned to grassroots initiatives, these are enshrouded by the systemic and structural issues of residency education and healthcare.

Discussion

Our study findings help improve our understanding of the way remediation at the PGME level is experienced by three parties of interest. We learned that stigma and compassion operate as competing forces across all three groups. Compassion alone is insufficient to offset stigma without systemic change. PDs and TF experience remediation labour as invisible and unremunerated which disincentivizes engagement. RPs uniquely frame challenges with implementation as an opportunity for change and in--reased learner engagement. PDs and TF focused on how the lack of recognition, time, and resources limits what can be achieved. RPs, in contrast, spoke most strongly about the harm caused by poor and poorly timed implementation.

While previous work has described RP feelings of stigma and shame around remediation,[3,9,11] Mills et al. in their scoping review on emotion suggest that more research is needed in understanding how to incorporate inevitable positive and negative emotions experienced preceding, during, and following remediation.[3] Our findings extend this work by capturing perspectives not only of RPs but also of TF and PDs, highlighting how emotional experiences are intertwined between all parties of interest that are involved in the process.

Approximately equal proportions of men and women responded to the survey among PDs and TF, compared with a significantly different gender demographic among RPs. There was also a higher proportion of RPs than PDs or TF who had been diagnosed with a disability. Although this study did not specifically address gender effects or other biases on remediation experiences, previous research recognizes there are differences in feedback delivery and assessments influenced by gender, race, and other biases of assessors and trainees.[17,18] Percival *et al.* found that physicians who had undergone remediation reported feeling less credible by program directors and faculty, particularly when they had a disability or belonged to a minoritized group.[19] Given the higher proportion of RPs identifying with a disability and the known effects of minoritized identity on remediation experiences, understanding how these factors shape responses in this cohort warrants further exploration in future studies.

To our knowledge, this is the first study to examine the perspectives of PDs, TF and RPs in the PGME remediation context. Previous researchers had identified stigma and shame as significant barriers to transparent and open remediation processes.[11] Our findings align with and further extend the work of Castanelli et al. by expanding the perspectives to three key priority groups and across a large academic institution. Congruent with their findings, PDs, TF, and RPs report stigma as being reinforced through perceived opaque and inconsistent remediation practices. Importantly, while compassion was frequently articulated as a core value by participants, our findings suggest that compassion alone is insufficient to counteract stigma when not embedded with consistent, well-resourced systems.

Participants who spoke about stigma, shame, and the hidden curriculum also spoke about *compassion*, describing mentorship and compassionate support as not only helping residents cope but actively reducing stigma and normalizing struggles. Compassion is frequently regarded as a universal value, grounded in both cross-cultural traditions and contemporary psychological understanding[20]. In the context of medical education, compassion is essential not only in patient care but also in how institu-

tions respond to learners in difficulty. When operationalized within systems of assessment, remediation, and support, it can counteract the harmful effects of stigma, shame, and hierarchical norms.[11] However, while compassion may be universally valued in principle, its expression is shaped by cultural, structural, and organizational factors that can either enable or inhibit its enactment. Intentional cultivation is required within educational environments marked by high performance expectations and entrenched power dynamics[19] where individuals can express compassion and yet not feel empowered to overcome the stigma, shame, and hidden curriculum contributing to compassion fatigue, stigma and shame, and failure to fail.

Overall, inconsistency, whether in individual assessment practices or program-level decision-making, emerged as a key contributor to hesitation, miscommunication, and a perception of inequity within the remediation process. Researchers have previously reported this in the literature on resident experiences of remediation[10,19] but is a novel finding reported by TF and PDs. The need for confidentiality and the stress of finding oneself in difficulty will undoubtedly create challenges with perceived lack of transparency. In addition, individualized approaches to learning supports and remediation, including those endorsed by participants in their narratives, can appear like differences in remediation approach. Although these limitations are unavoidable, every effort should be made to standardize processes and procedures, to answer questions, and to involve the residents in the process. At our institution, residents have mandatory orientation that includes sessions on access to learner supports and remediation processes and all remediations are over--een at the PGME level. The important next ques--ion is how to bridge the gap in knowledge and fur--her understand the source of the perceived incon--istency in process.

Participants consistently highlighted that supporting learners in difficulty is both under-recognized and unremunerated, framing it as a significant and largely invisible contribution to education, a finding not previously reported in the literature. This lack of formal acknowledgment, including absence in formal teaching activity summaries or institutional awards, not only diminishes the perceived value of remediation work but also fosters disincentives among faculty to voluntarily engage in these efforts. Literature from distributed medical education supports this. While financial incentives are mentioned, other meaningful forms of recognition, like formal institutional awards, professional development opportunities, or other forms of recognition, are appreciated and seen as crucial motivators.[21,22] Thus, institutions should implement structured, meaningful ways to acknowledge remediation work through genuine awards, tailored faculty development, and appropriate financial compensation, recognizing and leveraging the strong intrinsic motivation the majority of faculty derive from teaching and learner success.[23]

Kassam et al.[6] suggested frameworks for approaching complex intersectional issues in medical education that are applicable here. The participants in this study identified the complex interplay of factors that determine the effectiveness of remediation. Applying the micro, meso, and macro framework to our findings, stigma and bias can have long-lasting effects on learners at the individual level. At the program level, there is a significant burden of faculty time and resources required. Whereas, at the systems level, there needs to be a commitment to invest in learners, and address pervasive bias and stigma. The work required to achieve these goals will need to address all three levels of the medical education system. These themes are not discrete. Stigma, inconsistency, and implementation challenges are mutually reinforcing, present across individual, program, and system levels simultaneously.

This is the first study to compare the perspectives of PDs, TF, and RPs in PGME remediation. The survey and interview guide were not piloted, which may have affected clarity and interpretability of items. The survey response rate was low overall. Particularly for TF (3%), the findings should be interpreted as illustrative rather than representative. Respondents across all groups may represent a biased subgroup who may have had experience with remediation and been motivated to respond. We re-

port the experience of a single Canadian institution, and readers should therefore interpret the findings with caution when considering transferability to other settings. Additionally, several themes identified, such as perfectionism and faculty under-recognition, may reflect broader challenges in PGME beyond remediation and warrant future exploration.

Conclusion

This study advances understanding of remediation by capturing and comparing the perspectives of program directors, teaching faculty, and residents, a comparison of perspectives that has not been previously reported. We report here that remediation in PGME is shaped by shared experiences of stigma, inconsistent practices, and resource constraints, but also by a strong commitment to learner growth.

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