Canadian Medical Education Journal

Original Research

It's a 'two-way street': resident perspectives of effective coaching relationships in the clinical learning environment

Cela va dans les deux sens : le point de vue des résidents sur l'efficacité des relations de coaching dans l'environnement d'apprentissage clinique

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Published ahead of issue: February 28, 2022; published on July 6, 2022. CMEJ 2022, 13(3). Available at https://doi.org/10.36834/cmej.72940

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Abstract

Background: Coaching has gained traction in postgraduate medical education to enhance interactions between residents and clinical teachers, but these relationships present unique challenges and tensions. In order to realize the promises of coaching in medical education, we must understand how coaching relationships can be enacted to optimize resident development. The purpose of this study was to explore residents' perceptions of key characteristics for effective clinical teacher-resident (CT-R) coaching relationships.

Methods: We conducted four focus groups and eight interviews with residents at a Canadian academic center. Using a social constructionist approach, focus groups and interviews were audio recorded, transcribed verbatim, and thematically analyzed.

Results: Residents described three main characteristics that contributed to effective CT-R coaching relationships: safe, meaningful, and collaborative. Residents emphasized that these characteristics needed to be bidirectional in nature to be most effective, in that both the resident and clinical teacher embodied these characteristics.

Conclusions: Residents identified that effective coaching relationships were shaped not only by clinical teacher behaviours, but importantly, the quality of the interpersonal relationship that was fostered. Thus, it is imperative to consider the bidirectional nature of the CT-R coaching relationship when striving to enhance resident development.

Résumé

Contexte : Bien que le coaching ait gagné du terrain en éducation médicale postgraduée, notamment comme moyen de renforcer les interactions entre les résidents et les cliniciens enseignants, les rapports entre eux présentent néanmoins des défis et des tensions uniques. Pour atteindre les résultats souhaités en lien avec le coaching en éducation médicale, il faut comprendre comment ces interactions peuvent être mises à profit de façon à optimiser le perfectionnement des résidents. L'objectif de cette étude était d'explorer les perceptions des résidents quant aux caractéristiques clés d'une relation de coaching efficace entre le clinicien enseignant et le résident.

Méthodes : Nous avons organisé quatre groupes de discussion et huit entretiens avec des résidents d'un centre universitaire canadien. Suivant une approche socioconstructiviste, les groupes de discussion et les entrevues ont été enregistrés, les verbatims ont été transcrits et ensuite analysés de façon thématique.

Résultats : Les résidents ont décrit trois caractéristiques principales de la relation de coaching pouvant contribuer à son efficacité : elle doit être sécuritaire, significative et collaborative. Ils ont insisté sur le fait que pour atteindre une efficacité optimale des interactions de coaching, ces caractéristiques devaient être bidirectionnelles, à savoir présentes tant chez le résident que le clinicien enseignant.

Conclusions : D'après les résidents, si l'efficacité de la relation de coaching est déterminée par les comportements des cliniciens enseignants, elle dépend surtout de la qualité des rapports interpersonnels cultivés. Il est donc impératif de tenir compte de la nature bidirectionnelle de la relation de coaching entre cliniciens enseignants et résidents lorsqu'on vise à améliorer le développement de ces derniers.

Introduction

There is a growing body of literature suggesting that coaching is an integral component of postgraduate medical education (PGME). Indeed, researchers and educators have proposed coaching frameworks, such as R2C2[1,2] and RX-OCR,[3] to guide clinical teachers on how coaching behaviours can be used to facilitate learner self-reflection on clinical performance as well as encourage the uptake of feedback. However, coaching in the clinical learning environment can be fraught with challenges and tensions.[4-6] Although coaching can have important implications for residents' developmental outcomes,[7] inconsistent conceptualizations of effective coaching in medical education have created challenges distinguishing coaching from concepts such as mentorship.[8]

To address these inconsistencies, Watling and LaDonna[9] advanced three core elements of coaching to consider including mutual engagement whereby both the coach and learner (a) have a shared orientation towards growth and development, (b) value reflection, and (c) embrace failure as a catalyst for learning. While this conceptualization of coaching offers insight into what elements should be the focus of coaching, it is grounded in the perspectives of clinical teacher coaches. Given the dynamic and reciprocal nature of high-quality coaching relationships,[9,10] questions remain regarding the practicalities of coaching in medical education and how coaching should best be conceptualized from the resident perspective. Omission of the resident perspective is further underscored by the continued emphasis on clinical teachers within professional development opportunities. Without understanding resident perspectives of optimal coaching in the clinical learning environment, the promises of coaching may not be fully realized.

Developing high-quality interpersonal relationships between clinical teachers and residents represents a foundational component of effective coaching. Consistent with this perspective, Ramani and colleagues[11] proposed that relationship-centred communication can enable mutually beneficial trusting and supportive relationships between teachers and learners. Telio et al.[12] likened the "educational alliance" between teacher and learner to the therapeutic relationship between physician and patient. Similarly, Armson et al.[13] identified process- and content-oriented coaching skills, including relationship development, that can improve feedback use in PGME. Taken together, these findings underscore the important role that quality relationships play when coaching in PGME contexts. Despite this key component of coaching, the voices of residents on how to go about fostering effective relationships between clinical teachers and learners remains underrepresented.

While substantial progress has been made in illustrating the potential value of coaching approaches for resident development,[14-16] much remains to be learned about coaching as a dynamic and reciprocal socialization process. Many studies have viewed interactions between clinical teachers and residents as a teacher-driven process in which clinical teachers exert their influence on residents' experiences (e.g., providing unidirectional feedback).[7,13] Using this approach, learners are often regarded as passive recipients of coaching behaviours. This approach fails to capture residents' roles as active agents in shaping the clinical teacher-resident (CT-R) relationships through their own characteristics and behaviours.[10] This limitation is particularly important to acknowledge since residents can actively influence clinical teachers' behaviours.[17] Understanding how these processes emerge and express themselves in PGME is crucial for researchers, educators, and policy makers who wish to enhance the quality of CT-R relationships.

It is essential to understand how CT-R relationships and their associated behaviours can shift from being unidirectional and hierarchical to reciprocal and collaborative in nature. Both residents and clinical teachers are influential agents in shaping one another's beliefs, behaviours, and experiences.[10,17] As part of a larger program of research regarding resident and clinical teacher perspectives on coaching relationships, the objective of this study was to explore residents' perceptions of the characteristics of effective CT-R coaching relationships in the clinical learning environment.

Methods

We adopted a social constructionist research paradigm to explore residents' perceptions of effective CT-R coaching relationships.[18] Notably, social constructionism acknowledges that multiple realities exist, and that knowledge is constructed through the interactions between individuals and their social environment.[19] From this perspective, resident perceptions were framed by their learning context (e.g., stage of development, specialty) and understanding of a clinical teacher's role in residency education. In alignment with this approach, it was important to recognize our experiences and backgrounds.

JTa and JDD are physicians in Physical Medicine and Rehabilitation and Emergency Medicine, respectively. Both coach medical learners in the clinical learning environment and have been program leaders in the implementation/evaluation of competency-based medical education (CBME). JTb and JC are PhD experts within the field of coaching and positive youth development in sport and CM is a PhD student whose research focuses on group dynamics and interpersonal relationships in sport.

Study design

We invited residents to participate in focus groups to share their perspectives in a group discussion format.[20] Following this, one-on-one semi-structured interviews were conducted to develop a richer understanding of coaching relationships.[19] Interviews were composed of open-ended questions informed by relevant existing medical coaching literature (see online supplemental material).

Setting

We recruited residents from all postgraduate training programs in any year of training at Queen's University, an accredited academic center in Ontario, Canada with institution-wide CBME implementation since July 2017. This necessitated a shift to programmatic assessment with more frequent workplace-based assessment and thus, this institution represented a fertile setting to explore CT-R coaching relationships.

Data collection

Ethical approval from the Queen's University Health Sciences Research Ethics Board was obtained. We recruited residents to participate using email list-servs, word of mouth, and recruitment requests via CBME resident leads in each program. Twelve residents participated in four focus groups, and an additional eight residents participated in one-on-one semi-structured interviews, for a total of 20 participants (see Table 1). Focus groups and interviews took place between November 2018 and November 2019. Focus groups were conducted by JTb and were on average 67 minutes in duration (*SD* = 9:33). One-on-one interviews were conducted by JTb and CM and lasted on average 53 minutes (*SD* = 13:50). One interview was conducted over the phone as the participant was only available remotely. All interviews were audio recorded and transcribed verbatim. To maintain participant confidentiality, JTa and JDD did not take part in the interviews nor have access to the transcripts until anonymized.

Table 1. Demographic information of participants

Resident characteristics	*n**	%
Sex		
Male	4	20
Female	16	80
Surgical type		
Non-surgical	13	65
Surgical	7	35
Postgraduate Year of Residency		
1	7	35
2	3	15
3	2	10
4	6	30
5	1	5
6+	1	5

**In total, 20 residents between the ages of 25 and 34 participated.*

Analysis

In alignment with our ontological and epistemological position, a reflexive thematic analysis approach was used to analyze the transcripts, informed by the guidelines of Braun and Clarke.[21] We analyzed the data using an inductive approach and followed an iterative process that promoted coding/theme refinement as the focus groups and interviews progressed. In Phase 1 of data analysis, we (JTa, JTb, and CM) familiarized ourselves with the data through repeated reading of the transcriptions. Next, we tagged relevant codes using Quirkos Analysis Software, Version 2.1, first individually—then together (Phase 2), where codes were discussed and grouped into higher-order themes (Phase 3). The entire research team then met for further discussion of the preliminary themes which refined the original overarching categories (Phase 4) and aided in highlighting the central components pertaining to each theme (Phase 5). In Phase 6, all authors synthesized the write up of the proposed themes and finalized the analysis report.

Rigor

Method triangulation was used to develop an in-depth understanding of resident perspectives through multiple forms of data collection (i.e., focus groups and one-on-one interviews).[19] More specifically, the focus groups allowed for a breadth of resident experiences and perspectives to be shared, compared, and contrasted through group discussion. The semi-structured interviews then built upon this breadth of knowledge and understanding by providing in-depth and explicit examples of residents' experiences pertaining to effective CT-R coaching relationships. In addition, the research team met throughout the design, collection, and analysis phases to explore and critically reflect on assumptions or biases, as well as iterative interpretations of the data. This process facilitated active

engagement in reflexivity practices throughout the research process.

Results

Residents perceived effective coaching to occur within relationships that were: (a) safe, (b) meaningful, and (c) collaborative. Importantly, residents emphasized that each of these characteristics was bidirectional in nature, such that coaching relationships should be safe, meaningful, and collaborative for both the learner and the clinical teacher (See Figure 1).

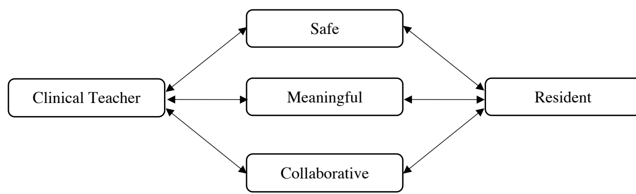

Figure 1. Bidirectional characteristics of an effective clinical teacher-resident coaching relationship.

Characteristics of effective clinical teacher-resident coaching relationships

Safe: Residents highlighted that a fundamental element of an effective CT-R relationship was the feeling of being safe. When describing perceptions of safety, participants primarily discussed the psychological, rather than physical, aspects of safety. In particular, residents highlighted the value of interactions that embraced the complexities of the learning process and were open to vulnerability, challenge, and self-reflection. First, participants distinguished effective CT-R coaching relationships as those where both the teacher and resident felt comfortable to be vulnerable and to share their struggles or gaps in their knowledge. As one resident noted: 'I can [make] mistakes, I can take a stab at a plan on a complicated case in clinic and feel comfortable being wrong…it just feels like it's a safer learning environment' (RI3). Residents highly valued instances when clinical teachers also provided glimpses of their own struggles in relation to their various roles as physicians, teachers, and more generally, as people. Residents discussed how trust could be fostered by clinical teachers who modelled vulnerability:

> *The [clinical teacher] isn't afraid of being occasionally a little bit vulnerable in terms of being honest about what's going on with her…we tend to…pretend that everything is okay and that we are invincible…and I think it takes a special kind of person to realize that even in a position of leadership…it's okay to tell people when you might be overwhelmed by something or you might need some more time. (RI8)*

Second, residents described feeling safe in CT-R coaching relationships in which both clinical teachers and residents could be challenged. Specifically, residents described safe relationships as those whereby (a) clinical teachers appropriately challenged residents based on their stage of learning and (b) residents felt comfortable challenging clinical teachers' ideas or decisions. One way in which these challenges were presented was through the use of questioning. While several residents provided examples of how clinical teachers may question residents to stimulate learning, others described how residents can question clinical teachers to enhance the clinical learning environment. For instance, one resident stated: "As a student, I could say to the staff, 'Why did you do that thing?' or 'That didn't work out so well, did it?' Everyone was very open to the self-reflection feedback" (FG5, PB).

Lastly, residents discussed how clinical teachers' and residents' self-reflective behaviours contributed to perceptions of safe CT-R coaching relationships. By engaging in self-reflection, clinical teachers and residents illustrated their commitment to self-improvement and growth. Importantly, residents discussed how reflection was a collaborative process that required active engagement from both clinical teachers and residents:

> *There's often a back and forth, 'How did you feel?' or, 'Where did you feel like that wasn't going as well?'…there's no blame, it's not a shame-based learning situation. It's more, 'How did you feel like that went?, 'What would you do differently?', 'This is what I saw from my position, was that similar to what you thought?' and then you know, 'Next time, what would you do?' (RI8)*

Collectively, participants highlighted how showing vulnerability, embracing challenge, and engaging in self-reflection all contributed to perceptions of safety in CT-R coaching relationships. Residents discussed how these behaviours could be modelled by both clinical teachers and learners to enhance the quality of CT-R coaching relationships and in turn, residents' developmental outcomes.

Meaningful: When describing effective CT-R coaching relationships, residents also emphasized the importance of recognizing the value of both clinical teachers' and residents' multiple roles and identities. Specifically, residents perceived these relationships to be meaningful

when both clinical teachers and residents were valued as people, learners/teachers, and clinicians. For example, residents discussed examples of how meaningful, person-centred relationships could be fostered by valuing each other's roles beyond the medical context. One resident highlighted:

> *For me, [my clinical teacher] offers both information about their personal life [and] asks information about [my] life so I think it's taking interest outside of work. To create that comfortable environment is also about having that kind of connection with the person and establishing a relationship that is professional, but also meaningful and that's something they did from day one…it really again, created that respectful but comfortable environment to learn and also make mistakes. (RI4)*

For some, meaningful CT-R coaching relationships were also fostered when clinical teachers shared glimpses of their lives outside the medical context. Residents expressed how such insights empowered residents to embrace the various dimensions of their own lives and served as a reminder that clinical teachers also embody multiple roles. One resident stated, 'I think the other thing is modelling…when you see them prioritize personal life, [it] makes it okay…it's not this is my work life and this is my home life, it's very much intermixed' (RI7).

Coaching relationships were also perceived to be meaningful when both parties valued each other's clinical skills and knowledge. Although residents acknowledged that they still had much to learn, they appreciated when their clinical teachers treated them as an integral member of the clinical team: 'I think if they interact with you as an equal, like you may not be equal in your competency or in your knowledge…but as a valuable person or being part of the team' (FG1, PB). Moreover, residents expressed how feedback was perceived to be meaningful when delivered by a clinical teacher with high levels of medical expertise:

> *I think for me, the number one thing is it has to be someone whose practice I respect, somebody who I see as a good clinician…if I don't trust them to be good at their work then I don't really trust the feedback that they give me. (FG5, PA)*

Thus, residents highlighted that when they respected their clinical teachers' skills and knowledge, this enhanced their coaching relationship with their teacher and furthermore, promoted optimal resident development.

Finally, residents stressed the importance of clinical teachers who valued their roles as educators and embraced residents' engagement in the learning process. Residents positively reflected on interactions where their learning was seen as a priority, rather than as an inconvenience:

> *It's nice when they say, 'This patient is not actually in our section, but you really wanted to see peds patients today and there is a really cool patient…I talked to the staff over there and you are going to see that patient.' That's really cool when they go out of their way to interrupt their flow of how their day typically runs to facilitate a learning experience for you. (FG2, PB)*

Altogether, residents perceived the CT-R coaching relationship to be most meaningful when the various roles and identities of both parties were acknowledged and respected.

Collaborative: The third characteristic of effective CT-R coaching relationships related to the collaborative nature of the relationship, in that clinical teachers and residents shared expectations, responsibilities, and decision making. Residents discussed the value of having explicit expectations in relation to the roles and responsibilities of both the clinical teacher and resident. One resident observed:

> *Knowing their comfort level is really helpful because then you don't accidentally overstep…they are supervising you and it's their license on the line if you make a mistake. So, knowing where their comfort level is, but also being able to communicate what you are and are not comfortable with so that they don't again, keep you on a super tight leash if you are trying to be more independent. (FG2, PB)*

In addition, residents expressed appreciation for those relationships in which they were afforded the opportunity to be involved in collaborative discussions with their clinical teachers. Such discussions were identified by residents as an opportunity for clinical teachers and residents to learn from one another. One resident commented:

> *If you're discussing a case, there's a lot of back and forth in that I think there's enough humility in a lot of our staff where it's like, 'Hey you know, you and I got different things here' or 'You and I thought different things here, we should talk about what happened' or 'Why do you think that?', which is great in that it should be a back and forth. A lot of our faculty often*

say that they learned things from us or didn't think about things and it's actually like a two-way street. (RI8)

Overall, participants described how both clinical teachers and residents fostered mutual trust and development by sharing expectations, responsibilities, and decision-making. Residents illustrated how these behaviours provided a new perspective on coaching that could be mutually beneficial for both clinical teacher and resident development.

Discussion

In examining resident perspectives of effective CT-R coaching relationships, three central bidirectional characteristics were identified: safe, meaningful, and collaborative. These results offer a template for clinical teachers and residents to use in the co-construction of their CT-R coaching relationships, and demonstrate how both clinical teachers and residents influence, and are influenced by, these relational characteristics.[22] As such, these findings advance our knowledge of coaching in medical education by identifying ways in which clinical teachers and residents can mutually engage to improve the quality of their CT-R coaching relationships and in turn, positively contribute to resident learning and development.

Results of this study consistently demonstrate how effective CT-R coaching relationships are underpinned by their bidirectional nature. When both clinical teachers and residents engaged in behaviours that fostered these relational characteristics of safe, meaningful, and collaborative, it prompted more opportunities for behavioural synchrony and positive development.[23] Discussions of coaching within the medical education literature and more specifically, professional development, tend to focus solely on how clinical teachers' behaviours can promote resident growth and development—largely neglecting the other party involved in the relationship (i.e., the resident).[22] However, consistent with fields outside of medicine (e.g., sport),[24] the most effective coaching relationships are those in which both the learner and teacher/coach are active agents in shaping one another's behaviours, perspectives, and experiences. Thus, research and practice that neglects the bidirectional nature of CT-R coaching relationships by focusing only on one member's behaviours, risks providing an incomplete picture of how to foster optimal resident learning and development.

Modelling was raised as a key avenue that enabled residents to become active agents in the coaching relationship. More specifically, modelling was discussed as a key component in promoting coaching relationships that were considered both safe (e.g., clinical teachers demonstrating vulnerability, embracing challenge, and engaging in self-reflection) and meaningful (e.g., clinical teachers prioritizing personal life/roles outside of medicine). Notably, modelling has been described as a key process for the professional development of learners.[25] When clinical teachers embodied specific behavioural examples for imitation or comparison, residents felt it was okay for them to embody those behaviours as well. For instance, residents emphasized the importance of clinical teachers reinforcing failure as an opportunity for growth and demonstrated that medicine does not need to be viewed as an all-encompassing dimension of their lives, but rather, one of many moving parts. In doing so, clinical teachers afforded residents the opportunity to self-reflect on their learning experiences and express various facets of their identity (e.g., clinician, learner, and person) in medical contexts. In doing so, these behaviours helped to cultivate humanistic relationships in which these multiple identities were valued. Thus, future work should explore how modelling may serve as a mechanism for enhancing the quality of CT-R relationships and, as a byproduct, personal and professional development of both residents and coaches.[14,25]

These findings also provide further guidance on how effective coaching relationships can be manifested within the clinical learning environment. For example, although previous studies have indicated that psychological safety is integral in the clinical learning environment,[26,27] few have offered examples of how perceptions of safety can be cultivated through interactive behaviours. Within this study, residents highlighted numerous behaviours through which clinical teachers and residents can foster feelings of safety, including demonstrating vulnerability, welcoming challenge, and engaging in self-reflection. These results align with the definition of coaching in medicine put forth by Watling and LaDonna[9] in which the core elements of coaching include mutual engagement, learner and coach self-reflection, and embracing failure as an opportunity for growth. Importantly, repeated exposure to these behaviours offered residents an opportunity to embrace the complexities of the learning process and encouraged them to share their feelings or concerns with their clinical teachers.

Taken together, this study provides insights for future coaching-oriented training initiatives within PGME. CT-R coaching relationships were not described as solely teacher-driven but rather, bidirectional. Actively engaging the learner in the process of designing and implementing medical education enhances not only the quality of medical education, but also has the potential to stimulate the growth of the learner and teacher.[10, 22] Here, the power differential between the clinical teacher and resident is weakened, and the resident begins to see themselves as an equally important party in the coaching relationship.[22, 28] Therefore, institutional support is essential to fostering the co-construction of bidirectional relationships and the personal and professional development of both residents and clinical teachers.[22] This support could include mitigating environmental barriers (e.g., providing protected time for coaching) as well as providing behavioural strategies (e.g., fostering norms that value the bidirectional coaching relationship) to overcome such barriers.[22]

Although this study advances our understanding of coaching relationships, some limitations must be acknowledged. First, this study took place at a single academic site, and thus, would benefit from being applied to other contexts. In addition, this study accounted only for resident perspectives of CT-R coaching relationships and did not consider whether these views aligned with those of clinical teachers. To further explore the importance of the bidirectional coaching relationship, future work might seek to investigate the beliefs and cognitions of clinical teachers, enabling a more comprehensive understanding of how these bidirectional characteristics influence the quality of the coaching relationships and their implications for resident learning and development.

Conclusion

This study advances our understanding of effective CT-R coaching relationships in PGME. From the resident perspective, effective CT-R coaching relationships must be bidirectionally safe, meaningful, and collaborative. Overall, this study fills a gap in the literature by offering a more nuanced picture of the dynamic and complex nature of CT-R coaching relationships in PGME. We hope that these findings can be used to maximize the benefits associated with the bidirectional nature of coaching relationships to in turn, create innovative educational opportunities that situate both the clinical teacher and resident as active and integral agents in the resident learning and development process.

Conflicts of Interest: The authors declare no conflicts of interest.
Funding: This work was supported by the Royal College of Physicians and Surgeons of Canada under a Strategic Request for Proposals Grant: Advancing Competency-Based Medical Education Across the Continuum (18-SRP-09).
Acknowledgements: We would like to thank the participants who generously volunteered their time to participate in this study, and Dr. Christopher J. Watling for his insight and expertise on coaching in medicine.

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