Preface

Author: Royal College

Preface

Program Directors (PD) play a vital role in Canada's postgraduate education system. Over the course of an average day, a program director wears many different hats and helps support, sustain and enhance a complex and critical system that serves an important role in the health of all Canadians. This is a significant responsibility largely because it is a crucial role and one that deserves to be well-supported.

If you are a new PD we want to congratulate, welcome and reassure you that you are in good company. Over the course of your term as a PD, you will learn much about residency training, leadership, change and people. While, there will be some challenges, there will also be many rewarding experiences ahead.

This eBook is written by numerous educators who have an in-depth, and often a personal, understanding of your role, responsibilities and context. Full of practical advice, this resource is designed to help you be an efficient and effective program director. The topics covered in this handbook are informed by experienced educators and they are designed it to help you make the most of the opportunities that lie ahead. This compilation, in its entirety, has been viewed through an EDI lens, with important concepts and teachings woven throughout. In addition, there is a chapter devoted to Social Justice, written for you as Program Director, with your new role in mind. We hope that the comprehensive list of topics will also help you to identify, mitigate and move through common challenges.

We'd also like to acknowledge that this ebook is an update to an earlier Program Director Handbook which was released by the Royal College in 2013. While it has evolved to reflect the changing landscape and context and become more inclusive, it does build on many of these common timeless topics and issues. Our goal is that this will be an evergreen document and new topics will be added as they arise.

In developing a resource like this one, we were deliberate about balancing functionality and comprehensiveness. As a Program Director you are and will always be busy so we have tackled topics with what we hope is enough depth to provide value, but with the brevity to facilitate quick infusions of timely information. In many cases, we've included a short list of other resources that you can access if you're looking for a deeper dive on any specific topic.

Finally, we want to acknowledge that this book was released in 2021, when many but not all residency programs had yet transitioned to Competence by Design (https://www.royalcollege.ca/rcsite/cbd/competence-by-design-cbd-e), which is a version of

competency based medical education used in Royal College accredited programs. In an effort to extend the shelf-life of this resource, you will see that we've elected to cover relevant topics without including timeline or timeframes.

We welcome and appreciate comments that we can use for future editions.

Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

01. Getting started as a new program director

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Objectives

After reading this chapter you will be able to:

- describe the roles and responsibilities of program directors
- identify the unique challenges that you may face as a program director
- describe the accountabilities and reporting structures associated with the program director role
- identify the partnerships that are required for program success
- apply practical strategies as you begin your program directorship
- build on the techniques and methods of successful program directors
- describe how you can establish a calendar of ongoing and recurring activities

Introduction

"We would like you to be our next program director."

These are 10 of the most frightening words one can hear as an educator in medicine. Emotions abound: the desire to do your duty for your program, excitement about providing mentorship and implementing positive change, self-doubt about your candidacy and a sense of helplessness about how to proceed.

Don't worry. You are not alone. If you have been approached to take on the role of program director (PD), there is a good chance that you are already equipped with many of the requisite skills. As an educator in your program, you are probably involved with resident education and assessment, possibly as a member of the residency program committee (RPC) or competence committee (CC). Transitioning to the PD role is a big step, but it can be one of the most rewarding stages of your career.

Characteristics of a great PD

- Leadership ability
- Ability to negotiate, mediate conflicts, advocate and resolve problems

- Strong communication and interpersonal skills
- Ability to interpret and apply policies and procedures
- Ability to provide effective feedback and familiarity with performance management
- Commitment to continuous learning

Understanding your roles

It is important to reflect on the various roles that will be assigned to you. Each academic institution will have its own job description for program directors, which will outline the qualifications, expectations, resource requirements, duties and responsibilities of the position. Throughout your tenure you will find yourself engaged in all of the roles listed in the job description, even though you may not have had a lot of experience with some of them.

Educational lead

As PD, you will be responsible for the overall administration of the residency program to ensure its success while also making sure that it meets all of the accreditation standards. You will shape the educational landscape of your program by introducing important initiatives to fill curricular gaps to ensure trainees thrive in the learning environment and have a superior educational experience. This will require patience and perseverance as change occurs at the speed of trust[1]. You will need to partner with other like-minded educators who are willing to support your initiatives or help codevelop new ones. Recognize that not all of your ideas will work; keep trying and don't get discouraged. The important point is to try to learn from unsuccessful endeavours. The programmatic educational changes you make during your tenure as PD will ultimately be your lasting mark on your program.

Administrator

As PD you will need to work collaboratively with your program administrator (PA) to ensure that your program's curricular goals are met and monitored. Although your PA is responsible for the administration of your program and one of the most important determinants of your program's success, be careful not to be passive in your role and leave it solely up to your PA to carry out this duty. Be intentional about how you interact with your PA: schedule regular meetings to review your program together. Additionally, as chair of the RPC, you will be responsible for setting meeting agendas and guiding the processes within your program. Keep your own meticulous records and files. Make time to reflect on your program's processes; in particular, be on the lookout for situations where these processes are preventing equity, diversity and inclusion (EDI) initiatives from being successful. Be flexible and respectfully challenge them.

Human resources director

During your tenure as PD, you will be responsible for recruiting, selecting and developing your resident group. You are the face of your program, so it is important for you to purposefully reflect on your program's priorities with your RPC. Recruitment to your program may begin with the first-year medical students at your institution and continue throughout their time in medical school. Every interaction with a medical student is an opportunity to showcase your program and lay the groundwork for attracting the best and brightest to your specialty and program. Your recruitment efforts may also involve critically exploring how your residents' diversity may or may not reflect the patients they serve.

You will be responsible for meeting with your program's residents on a regular basis; this will give you a good opportunity to establish a longitudinal relationship that is built on trust and rapport. Through these regular meetings you will provide mentorship and support in addition to carrying out the important task of discussing each individual resident's progress and learning plans moving forward. Providing residents with honest, constructive feedback on their progress is crucial to their development and growth as a physician in your specialty. Sometimes these conversations can be difficult, especially if a resident is in need of remediation or if there are concerns around professionalism. Seeking guidance from your own mentors, your postgraduate medical education (PGME) office and your department's human resources personnel can be really helpful. Document these conversations in the resident's confidential file, for future reference.

Resident advocate

The most important role of a PD is that of resident advocate. It is your duty to ensure that your residents feel safe and supported in their learning environment. Similar to a parent, you must watch over, guide, course correct and, at times, provide tough love to your residents. Securing the support of the residents in your program is crucial to your success. You will be able to achieve this only through listening to their ideas and concerns, which will ultimately build a lasting trust.

The program directorship cycle

Preparing for your role

Now that you have agreed to become the PD, you will need to familiarize yourself with the day-to-day activities associated with the role. One of the simplest ways to accomplish this is to "virtually shadow" your predecessor, if possible, for six months before your official start date. Arrange to be copied on every email communication that the PD receives and sends. This is an excellent method to start to understand the daily responsibilities of a PD. If this isn't possible, utilize the time you have and work with your predecessor to design standard operating procedures (SOPs) for the various pieces and processes of the work.

You will have to develop a working knowledge of a variety of sources of documentation at all educational levels, including the national level (Royal College of Physicians and Surgeons of Canada), the university level (your local PGME office) and the program level (documents that are specific to your program). At the **national** level, The *Standards of Accreditation for Residency Programs in Family Medicine* (College of Family Physicians of Canada)[2] or the Royal College's discipline-specific standards of accreditation[3] are required reading for every PD. These important documents describe the required clinical and academic experiences that will enable residents to obtain the competencies they need, state the expectations of a resident's performance at the successful completion of training and outline the appropriate structure and organization of a training program.

In addition, you must review and have in-depth knowledge of the CanERA *General Standards of Accreditation for Residency Programs*,[4] which are a national set of standards maintained conjointly by the Royal College, the College of Family Physicians of Canada and the Collège des médecins du Québec, for the evaluation and accreditation of residency programs. These documents serve as the foundation for the assessment and subsequent accreditation of your program. As the incoming PD, it is crucial that you review your program's last accreditation report to gain a better understanding of the strengths and

weaknesses of your program. This will serve as a starting point in the “needs assessment and identification of curricular gaps” in your PD cycle. It is also important to familiarize yourself with Competence by Design[5] and CanMEDS.[6]

Review the important PGME governance policies and procedures at your **university**. The policy for the assessment of postgraduate trainees is the most crucial, as it sets out the standards for the assessment, promotion, remediation, probation, suspension, extension of training, reintegration and dismissal of trainees in all residency programs. Understanding the principles of trainee assessment will allow you to ensure that there is an appropriate assessment framework that meets the national training standards.

You will also need to learn about the specific tasks required to effectively run your **program**. A very practical exercise involves reflecting on the yearly academic cycle and making a detailed master schedule of all monthly activities, including all required meetings, examinations and Canadian Resident Matching Service (CaRMS) preparations, as examples. Collaborating with your predecessor in the PD role and your PA will greatly facilitate this activity.

Taking formal training to enhance your preparedness for your new job is highly recommended. For example, each year the Royal College offers a full-day workshop for new PDs. The Royal College extends invitations to the event to all new PDs, typically in their first year. There are also often offerings by local PGME offices for new PDs. To further enhance your communication strategies, instruction in Crucial Conversations[7] may be offered by your institution and is an invaluable resource in your PD toolkit. Lastly, many universities, including faculties of medicine, are developing EDI workshops that may help you to bring this lens to your work.

Practical tips for getting started

Assemble your team

Build your team and nurture these relationships. Engagement by every team member is crucial to your program’s success. Having like-minded educators around you in supportive roles is highly recommended as it will provide you with partners with whom you can informally discuss innovation and challenges within your program. At the same time, it is also important to build relationships with educators who have diverse viewpoints or lived experiences to prevent your team from being an echo chamber of the status quo. Developing a strong relationship with your PA is a must. Remember, it takes a village.

Program team members

- Program director
- Assistant program director or other supportive medical education faculty members

- Competence by Design leads — including program, departmental, university (PGME)
- Competence committee chair
- Program administrator
- Residency program committee
- Residents (particularly chief residents)
- Departmental and divisional faculty
- Postgraduate medical education office

Dedicate time and resources

The role of PD requires sacrifice, dedication and time. It is important that you give yourself the opportunity to be successful. Depending on the size of your program, you will need to invest a minimum of a half-day per week in your PD work if your program is smaller and a minimum of one day per week, often more, if your program is larger. This dedicated time enables you to complete your administrative duties, meet with your PA and trainees and spend uninterrupted reflective time on your program. Remember that your time is also a commodity. Appropriate support helps legitimize your role. Review how this support will be provided with your divisional or departmental chair and/or PGME office. Lastly, dedicated PA support is not only crucial to your success but also an accreditation standard.

Tips for academic scheduling

- Send out faculty academic assignments several months before the start of a new academic cycle
- Be sure to send a copy to the administrative assistant of each faculty member
- Have your program administrator send out a weekly reminder to all residents and faculty of the planned activities
- Always look ahead two or three months to prepare for upcoming academic activities

Academic planning

There are many chess pieces to move around the board as you plan out your program, to balance service to your patients and delivery of education. Plan out yearly resident rotations at least six months ahead of the release date. Provide the residents an opportunity for input. Your chief or senior resident(s) can prove to be an invaluable resource to assist you in service scheduling, as can your PA. Be flexible and adaptive to the human resources changes that may occur, often at the last minute. Planning the academic schedule is sometimes a daunting task. Both residents and faculty need to be aware of their academic commitments. By assigning faculty their respective educational responsibilities well in advance, you will minimize cancellations of academic activities. One useful tip is to send to each individual faculty member their complete list of commitments, including specific dates, times and locations, at the beginning of the academic cycle, to

provide them the greatest chance of adjusting their clinical responsibilities. Don't forget to also reach out to faculty who are not members of your program, as they can be excellent resources. Also, be sure to copy each faculty member's clinical assistant who is responsible for their clinical schedule, whenever you ask for their time. Throughout the year, your PA can send out a weekly reminder of the planned academic activities.

Where to turn for support

- Previous program director
- Program directors from the same specialty at other centres
- Program directors from different specialties at your own centre
- Departmental vice chair, education
- Postgraduate medical education office
- Vice dean or assistant dean
- Royal College of Physicians and Surgeons of Canada

Communication and feedback

It is important to provide educational updates to your residents and faculty on a regular basis. Weekly educational rounds, divisional rounds and journal clubs can be useful avenues for disseminating information. It is equally important for you to receive feedback from all members in your program, especially your residents. By listening to the residents' concerns, for example through the RPC or an individual conversation, you will enable the program to be responsive to the learners' needs in a timely fashion. An annual review of the program with residents at an informal venue can be a great team-building exercise and allow the residents the opportunity to provide feedback on the year's activities while ensuring that the program is undergoing continuous quality improvement. Implementation of an anonymous feedback box, for example, can also provide the residents with a risk-free mechanism to provide program feedback.

Organization

Keep meticulous resident files. Save all programmatic documentation in backed-up electronic files. You will find that this will allow you to continue to build on earlier initiatives and you will be thankful that you have readily accessible information when you need it. Parts of these files may also need to be accessed in an organized way by the competence committee.

Moving forward

As you embark on your program directorship, it is important to remember that although you will be giving yourself over to a unique commitment that will last at least five years, you will be the guiding mentor for a group of residents whom you will steer through their own residency journey. You will make lasting friendships that will be some of the strongest of

your career because of the unique bond you will have shared. You will have the opportunity to grow your program and create a lasting culture that will set the foundation for the future.

Inspire your learners and faculty. Most importantly, embrace your role, enjoy yourself and have fun!

Further reading

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

02. Reflections of a seasoned program director: Setting your program up for success

Author: Adelle Atkinson, MD, FRCPC

Objectives

At the end of this chapter you will be able to:

- understand that your training may not have totally prepared you for all aspects of the program director role and that it's okay! You can give yourself time to grow into the job.
- employ strategies to maximize your success as a program director
- identify sources of help/support for the challenges you may face

Introduction

You have just been appointed as a new residency program director in your department. Congratulations! You are going to love it. Whether your program is large or small, whether it is running smoothly or needs some work, and whether you have been given a thorough orientation to your new role or just the keys to the office, a good-luck fist bump and not much else, you are probably feeling a bit daunted by all the responsibilities that come with your new job, and what you don't yet know. This chapter is designed to provide you with some of the insights that come through the reflections of experienced program directors.

Communicate, communicate, communicate

Effective and skilled communication is one of the hallmarks of operationalizing any successful residency program. As a PD, you will be the originator, recipient, or amplifier of much of the communication that takes place your program. Take this opportunity to try to hone your skills in this area. Effective communication will not only make your program better, but it will also make your job easier. When starting to take on and manage some of the typical issues that come up in residency training, loop in more people than you think is necessary, as you may find you end up needing them. Somewhere along the way, you'll make a connection that's really going to help you with your work.

You may constantly feel flooded with information, so it will be important to decide how you're going to manage the volume information coming at you and ongoing communication about a variety of topics, multiple times a day. How will you arrange your files? Managing email communication can be particularly challenging. Some PDs deal with emails as they arrive and try to touch them once; others scan the subject line and look for the urgent ones, flagging the rest to be handled later. It will be important to find a strategy that works

for you and helps keep you organized. (You will find that your residents will often email when they have free time, so it is not unusual to get an email at 2:00 a.m. while they are on call. If you happen to be awake when the message arrives (and you shouldn't be), you don't have to email the resident back right away, but you do need to realize that you will sometimes wake up to an issue and will need to figure out how to manage it. Whichever method of managing emails you decide to employ, try not to open an email multiple times. Schedule a bit of time (and protect it) at the end of the day to review all that day's messages to ensure that you don't miss anything.

Meet regularly with your Program Administrator (PA). They are a key partner in this work. This action will save you a lot of time. Your PA will know what's going on and what needs to be done, often before you do. Regular communication with your PA will ensure that you know which tasks have been completed and which ones are still outstanding. It also helps to make a plan for the week and get a sense of which tasks are becoming urgent in the office.

Make a point of talking to and checking in regularly with your residents. This might be regular open ended town halls, fireside chats, or small groups. Preparing them for independent practice is the reason your residency program exists. As discussed later in this chapter, you won't be able to ensure that the program is meeting their needs unless you have a good understanding of what those needs are.

Finally, run things by other key faculty members in your program, informally and formally through your RPC. They will feel much more a part of your program if you ask their opinion, solicit suggestions and engage them in the activities and decisions. They are your brain trust so rely on them.

Despite your best efforts to be a good communicator and keep on top of all the issues, sometimes you will still find out things after the fact and need to respond to them. This is all part of the journey, and these experiences will help to inform your CQI approach moving forward to mitigate similar occurrences in the future.

Understand your residents' unique needs and then work to address them

The primary goal of any residency program is to provide robust training that meets all the required standards and will equip its residents to practise independently, meeting the needs of the population they will serve. As a PD you will be managing a group of junior physicians most of whom, are at a transformative stage in their lives, not only in their professional lives but also — quite often — in their personal lives. To ensure that your residents thrive in your program, you will need to understand what they need on both fronts and then how to support them in such a way that they can meet their goals.

You will find that there is a significant supportive component to your position. It is a privilege to be able to provide this support to this evolving group of learners, as they navigate their training. In addition to overseeing the curriculum, providing your residents with the appropriate learning opportunities and making sure that they develop the required competencies, you have an important role to play in ensuring that they remain physically and emotionally well (see chapter 11). Be prepared to help your residents to deal with any family or other personal challenges or emergencies that may arise.

Your own training in some ways will have provided some knowledge for you of many of the traditional aspects of the PD role, but perhaps not for the relational aspects of the job, and of course all the "behind the scenes" activity. Developing a mutually respectful and trusting relationship with your residents will be a key element of your success in supporting their journey: you may not know exactly what they need unless they feel comfortable telling you. It can be helpful to chatting with more experienced PDs to get advice and to try strategies that have worked for them. For example, you might consider meeting regularly with your residents for fireside chats. It might be helpful to create a short agenda as to what you want to talk to them about, to help the conversation flow. When you start out, you may not always know how to respond to issues and questions raised, so tell them you will seek out guidance/answers and loop back. As you become more familiar with their needs both individually and collectively, you will eventually have the information and solutions needed at your fingertips.

Some of the needs related to resident groups are very specific, and you will become familiar with them over time. Sometimes you may be surprised at what falls in your lap and is your responsibility! Many of the needs are specific to their training environment and others are related to external factors such as the collective agreement in the jurisdiction in which they work. For example, there may be guidelines in the collective agreements specific to the places where they sleep while they are on call: the doors may need to have locks, there may have to be a secure space for their personal items, and the rooms may have certain requirements such as a lamp, a telephone and a pillow. It may be your responsibility to ensure that these requirements are met. Some needs may be situational, for example who would have predicted a global pandemic and how it would affect residents in their roles as learners. During the COVID-19 pandemic all PDs had to adapt to the measures required to keep our residents and patients safe, while continuing to train and provide care. It required a communication strategy that provided them with the information they needed while allowing a forum to ask questions and get the support they needed for their individual circumstances.

Cultivate a growth mindset

As a new PD you will face many challenges you have not confronted before. Be confident that you will figure things out as you go; being adaptable is key to success.

Be intentional about cultivating a growth mindset (see chapter 14), both personally and in your residents. Many people will provide advice, input and feedback about your program. Consider their input, and see it as an opportunity to think differently, look at the program through a different lens and perhaps make changes for improvement. Encourage your residents and faculty who come to you with concerns, to also come with solutions and ideas.

Consider a scenario in which a small number of residents in your program express concerns to you about a particular issue. Let's use on-call as an example. It is likely that you need to get more information, to fully understand the concerns and plan the next steps in finding a solution. Consider taking an appreciative inquiry approach: ask your trainees what they like and find valuable about their call, what they would change if they could and how your program could potentially do things differently, to provide the best training possible. This positive framing can help guide the conversation towards brainstorming around productive and constructive solutions to move things forward. Importantly, the residents have an opportunity to provide valuable input co-create the solutions with you.

Always be mindful of the fact that your residents and colleagues will be watching how you respond to and manage feedback about your program. You have a key opportunity to role model a growth mindset for those around you. This will encourage them to embrace this approach and potential opportunities for change and growth. As your program goes through challenging periods, be sure to tell your colleagues regularly how much you value their time and investment in the training program. You can't do this work without their important contributions and it's important that they know how much it is appreciated. Be sure that they also receive academic recognition for this medical education work, through the local processes at your institution. In addition, think about mentoring them for leadership roles which may arise, and suggest them for collaborative projects which may come along.

Be prepared to support trainees and teachers who are struggling

At some point in your tenure, you may need to support some of your learners facing academic difficulties and some of your faculty members who may be under performing as teachers. Other PDs who have gone before you have faced similar challenges, and you will not have to reinvent the wheel in determining how to respond. It is important to familiarize yourself with the procedures that have been established at your institution to guide your actions and know who you need to engage to help support you through it.

It can be challenging to address performance issues. As you learn about the processes you need to follow, you will become aware of a wide range of resources you can draw upon, and you will see that there will be significant support. A good place to start your learning on this subject is to read the relevant chapters in this handbook. Chapter 13 discusses how to

identify and support residents in difficulty, Chapter 17 offers strategies to help faculty members with less-than-stellar teaching skills and Chapter 12 discusses how to respond when teachers behave inappropriately.

Conclusion

Your time as a PD will be one of the most fulfilling periods in your career with enormous growth and opportunity. It is a privilege to be a part of the journey that will train this group of physicians to practice your craft. As you invest in this process you will reap both professional and personal rewards.

Enjoy this this handbook. It is our collective goal that it will provide you with evidence-based and experiential guidance on how to make the most of this opportunity you've been given.

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03. Reflections of a seasoned program director: Setting yourself up to thrive

Author: Adelle Atkinson, MD, FRCPC

Objectives

At the end of this chapter, you will be able to:

- design a plan to help you settle into and understand the scope of your new role
- discuss an approach to solving common problems within the program, through developing networks of support
- understand who you need to network with to manage your program effectively
- discuss an approach to time management

Introduction

You have been offered the role of Program Director, and in addition to wanting to provide an excellent program for your residents, it is important to consider how you and your career will thrive. With strong mentorship and support from your leaders and your team you can be intentional with your planning and set yourself up for success. Enjoy these reflections from those who have gone before you, with hope that it offers some wisdom as you embark upon this path.

Give yourself time to settle into your new role

One of the biggest challenges we face as new PDs is developing an understanding of the full scope of the role. Its just hard to, until you are truly in the weeds. Usually you will already be familiar with some aspects of the job, having watched your own program director when you were a trainee, which is a nice perspective, and perhaps also having worked with and observed your predecessor in your current program. Unless you are launching a new residency program, you will have to take over the steering the ship (your program) while it is moving full steam ahead; to navigate appropriately, you will need to grasp the full scope of the work involved fairly quickly. Give yourself time to settle into the role, and if possible, a long runway of overlap with your predecessor is ideal to set you up for success. Have regular meetings with the outgoing PD and the PA who supports your program to keep you on track as you learn the role. And always ask lots of questions.

One of the smartest things you will do is to communicate regularly with a wide range of people who are there to support you.

Don’t be afraid to ask for help

It cannot be emphasized enough, how good communication and cultivating relationships with a wide range of people are important keys to success. You will reap the benefits of this practice when you inevitably need help! It’s quite possible, in fact probable, that at some point in your tenure as PD you will come across a problem you may not completely understand and/or know how to fix. But if you know whom to call on for help, you are halfway there to solving it.

One of the first things you might want to do in your new role as PD is to discuss the challenges you see in your program with people who are good problem solvers. Their insights will be helpful in guiding you towards a solution. In addition, they may suggest others who might be helpful in specific types of situations.

One piece of wisdom that was passed on to me, was to always remember that the residents often have the best solutions to issues within the program. And its true. For example, if there is an issue in your program directly related to the experience of the residents on their rotations or with their curriculum, remember it’s the residents that have first-hand knowledge of the issue, they are in the trenches. They are often an underutilized resource when it comes to coming up with thoughtful, practical solutions to problems that directly, or indirectly affect their training.

Meet regularly with the leader who oversees your portfolio around the issues in your program, especially when you start out. They will be an invaluable resource in terms of support, mentorship and helping with problem solving. From time to time, there may be things that you and your direct leader may need help with; in such cases there are many other resources available to you including your Associate Dean PGME.

As PDs, we feel a kinship to other PDs. Be sure to keep in touch with other program directors both at your institution and across the country. Program directors in your specialty may have regular meetings as a group (once to twice a year) either in person or virtually and often respond quickly to email requests with questions. They are a collective wealth of knowledge. They may have had to deal with similar issues and can share these experiences, or they may be able to share with you or direct you to useful resources.

You will find that sometimes you will engage and rely on people who are experts in other areas, that you might not have imagined. For example, a number of years ago, we had to relocate some of our resident on-call rooms to make space for some outpatient clinic rooms. Well, there was a lot to consider. From ensuring the terms of their contract were met to advocating for the things that were important to them around having a safe and secure space, to being close to the patient areas etc. I found myself in a boardroom with the hospital architect, discussing the possibilities as to where these on call rooms could go. We pulled out really long rulers and found ourselves measuring massive building plans to see whether the proposed new location for the sleep rooms would meet all of these diverse and important requitements.

Never shy away from asking for help. You will end up networking with interesting people in a wide variety of roles in all areas of your hospital and beyond your institution. This is the diverse team that will help you to provide an outstanding program for your residents, through providing their expertise and helping you to manage a diverse array of issues.

Organize your time

At the outset of your tenure as a PD, it is important to work with you leadership to ensure you have been allotted the time you need to do the job well. It is well recognized in postgraduate medical education that time needs to be carved out for the PD role; PD duties cannot simply be added on to an individual's other full-time responsibilities. Talk to seasoned PDs to determine how much time/effort the job will require, then set yourself up for success by negotiating enough time to do the job well. Some institutions have a standardized approach to calculate the fraction of a work week that PDs will need to devote to running programs of different sizes.

Once this time is carved out, there will be many competing demands on it. It's important to be purposeful and prioritize what tasks you will focus on and when you will do them. There are many deadlines in the life of a PD, you will learn what these are and schedule around them. Skills in time management are a huge asset and can be learned.

The first step in organizing your time is to get a sense of everything you need to do. A great starting place is to get a broad overview of the activities you are responsible across the breadth of the program. Review your program's master organizational yearly schedule; try to look 9–12 months out so that you have an idea of the entire academic cycle. Take note of the important activities that must be done in a specific time frame, and then block time for them in your calendar, way ahead of time before your calendar fills up. Assign priority levels to tasks based on how they relate to the master schedule, and the timeline. For example, when the CaRMS match is happening, resident selection activities are a priority (see chapter 9). When your program's Competence Committee is reviewing your residents' performance (see chapter 20), activities such as fireside chats with your residents are important to have scheduled to discuss their progress. If your program's accreditation visit is on the horizon, block plenty of time for preparation, well in advance of the visit: the earlier you start preparing, the better (see chapter 26).

Once you've blocked the necessary time for your must-do priority activities, you can see where your other activities will fit in, the ones that sometimes don't seem to rise to the top of the to-do list. Find out how long these activities should take and when they need to be completed. For example, if you're asked to review abstracts or prepare a workshop for conference, ask the organizer about the time commitment and deadline. Start with that date and work backwards to block the time required to get the task done. If you don't end up needing all the time that you've allotted to a task, excellent, you can use it for something else! It's an amazing feeling to suddenly have some "found time" in your calendar.

As with all roles, it is vitally important to prioritize personal commitments and find that important balance. If there are important personal tasks that you need to attend to, such as child related activities, block the necessary time in your calendar. It's easier and less stressful to put personal tasks in your calendar in advance than to cancel or reschedule activities when you realize you are double-booked.

Remember that you can't always do it all, all the time. You may find that you have days where your calendar just feels like you are booked solid with no breaks. If someone is helping to organize your calendar, ask them to schedule a little bit of time here and there for you to take a breather and catch up. If you do a lot of your work virtually, as has been the case for many PDs during the COVID-19 pandemic, it is even more important to schedule breaks because it can be really challenging to be in front of a screen for prolonged periods of time.

At the end of the weekend, it is helpful to look at your upcoming week and prepare a to do list. At the top of your list put the important things that must get done for the week, such as preparing for a meeting tomorrow, that requires a review of documents. Do these tasks first. You may not get to the bottom of your list each week but creating a list will help you to be productive.

Sometimes, however, it doesn't matter how diligently and thoughtfully you organize your time: there is just too much going on. As discussed in the previous section, don't be afraid to ask for help. If you feel overwhelmed, speak to the people who may be able to take some tasks off your plate, whether it's a colleague or your team.

It is important to recognize that your day will not always unfold according to your plan. For instance, something might happen in the middle of the night that will completely change your priorities for the next day. Flexibility is key.

Plan for your future

While there is a huge learning curve involved in becoming a PD, and it will take time to settle into the job and to become efficient, you will find it so rewarding.

Remember to give yourself time to learn and gain experience, and when you are feeling more settled you may want to take on additional roles that require your expertise. In fact, people will come to you and ask you to help and even lead other initiatives given your growing experience as a medical educator.

As your career progresses you will learn so much, gain so much experience and develop important networks. Some of these networks may lead to being offered additional leadership opportunities, either in parallel with your role as PD and/or in the future. In some ways, you might not be able to imagine what some of these opportunities might lead to, so embrace them!

It is important that ensure you have mentors who will guide you in this role and around career path. Seek them out and rely on their wisdom. Importantly they may advise you when you might want to be thinking about promotion. Most institutions provide support around the process for promotion including workshops on how to prepare your dossier as well as information around the timeline. Take the time to consider whether this is something you want to pursue and attend information sessions. Approach colleagues who have gone before you for advice and examples of dossiers to review.

Conclusion

Taking on the role of Program Director is a wonderful career opportunity and it is key to set yourself up to thrive in the role. With some intentional planning from the outset, and advice from those who have gone before you, you will enjoy this time and your career will flourish.

Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

04. Postgraduate Medical Education and Social Justice

Author: Saleem Razack, MD, FRCPC

Objectives

At the end of this chapter you will be able to:

- understand the elements of equitable, diverse and inclusive residency program
- become familiar with the impact of the formal, informal and hidden curricula within your program
- develop an action plan to ensure your program operates within a framework of anti-racism/anti-oppression

Introduction

Deliberate Construction of Equitable, Diverse and Inclusive Residency Programs

Residency program directors experience many forces that keep them grounded in the present, or perhaps the near future of weeks to months to a year or two. Examples include: selecting the next cohort of residents; accomplishing a successful accreditation visit; incorporating a new training site into the program; making sure the ICU resident roster is fully covered. These moment-to-moment concerns can weigh heavily.

Residency program leadership must never lose sight of the longer-term goals of residency education, however. Ultimately the raison-d'être of residency education is to train the next generation of physicians in a particular specialty to serve the ever-diversifying populations of the future well. Within a program director's small part of improving residency education (specialty education of residents), they seek to do their part to build better health care systems and a better world, through greater social justice. They must also be mindful of program responsibilities to learners – to be stewards of welcoming learning environments, where all may flourish according to their abilities, with no barriers to showing their "best selves" in their work and learning, and with their psychological safety assured.

Equity, diversity, inclusion, and an anti-racist/anti-oppressive framework (abbreviated as EDI-AR throughout this text) are key tenets of socially just residency programs.

Definitions

Equity

Fundamental to the concept of equity is the notion of acting with fairness and with a goal of justice (1). It is distinguished from equality in that achieving fairness may not mean equal treatment for all. With respect to the concept of justice, integrated into the concept of equity is that there have been groups of people (e.g., based upon race or gender) who have been and continue to be structurally marginalized within society, and that processes and polices that seek greater equity are fundamentally about addressing those structural issues. Within residency programs, we are asked not to look at institutions within medical education (residency programs, medical schools, teaching hospitals and the like) in the abstract sense as being passive witnesses to the injustices of society, but rather, as fundamental tools or agents in the creation and reproduction of the injustices.

For instance, the forced and coerced sterilization of Indigenous women in Canada, a practice codified in law in several provinces until 1972, and continuing by some counts to at least 2018, was indeed a horrible societal injustice (2). Yet, sterilization is a medical procedure. Graduates of Canadian residency programs performed those procedures. The residency programs taught the paternalistic form of ethics and professionalism which gave rise to the highly troubling justifications for the procedures. For a residency program, perhaps an obstetrics and gynecology program, which is in full institutional continuity with that past, if we continue with the example of coerced sterilizations, the question to be answered is what are the responsibilities in training the next generation, in ways which honour the victims of the injustices and which address the present-day resulting health inequities?

Diversity

On a very basic level, in medicine, populations are defined through one or more characteristics which they share (e.g. Middle-aged South Asian Men at risk for type II Diabetes (this is me!)). Observations about the behaviour of populations are then drilled down to the care of individuals. What, then, is the “diversity” of a population? The diversity of a population simply becomes the socially meaningful characteristics that the individuals within the population do not share. For instance, returning to the example, the South Asian Men might be different by social class, country of origin, sexuality and the like. What differences are socially meaningful depends on the social context. In Canada, we might talk about race, or maybe rurality, among many other qualities that make up the domains of interest with respect to diversity. In India, we might talk about caste.

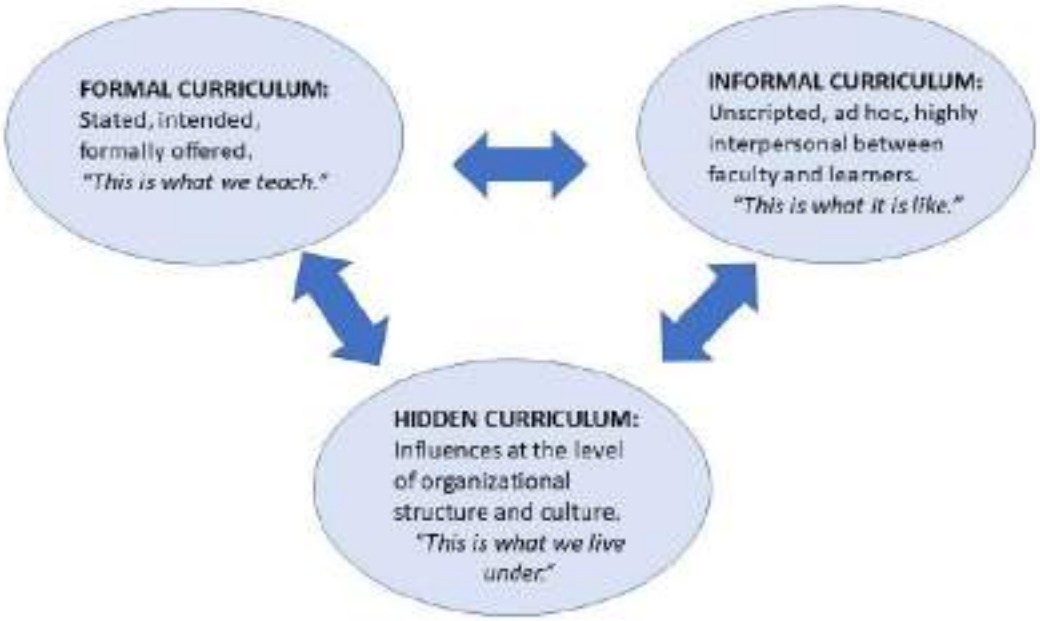
Another pitfall in the teaching of diversity is to unwittingly ascribe a ‘normal’ within the diversity (e.g. the 70 kg white male that many of us learned about in medical school), with individuals different from this ‘normal’ being presented as ‘deviating’ from it (3). Teaching medical knowledge in this way can be a mechanism through which inequities propagate.

With respect to diversity, a key question that residency programs need to consider is how diversity is being represented in what is learned and the diversity of who is present in the learning environment.

Inclusion

Shore et al. have defined inclusive institutional policies from an organizational behaviour perspective (4). Institutions are said to engage in inclusive practices when, through policies and procedure, they simultaneously promote valuing of individuals' uniqueness and promoting a sense of belongingness for multiple and diverse individuals. What might this look like in a training environment? A simple example might be that in a surgical program, there is a policy for acceptable forms of head covering for Hijab-wearing Muslim residents in the program for work in the operating theatre from an infection control perspective with the policy co-created with major stakeholders (What brands and forms of head covering are permissible). Such a policy would promote both a valuing of uniqueness and a promotion of belonging. For residency training to be inclusive, all policies and procedures must be examined through the lenses of promotion of belonging and valuing of uniqueness.

Framework for examining a residency program for EDI-AR



A new program director might ask: how can I embed the concepts of EDI-AR into my program? A useful way to organize deliberate review of a residency program for EDI-AR is the Forms of Curriculum Framework represented graphically below in :

A residency program can be considered as having 3 interacting “forms” of curriculum, the formal, informal, and hidden curricula respectively. As a Program Director, it is key to be aware of all three, and how they impact the program.

The **formal curriculum** consists of material or training experiences aimed at providing instruction in attaining the stated learning objectives of the program. For a residency program, the formal curriculum includes traditional instructional methods such as lectures and workshops, as might be found in the content of academic half days, but also the required immersive and experiential clinical experiences such as rotations.

The **informal curriculum** is a similar concept to that of the learning environment, ie. the culture of a learning space (traditional or clinical). The focus in labeling the space as a curriculum rather than the environment of learning emphasizes that educational outputs (behavioural norms etc.) reproduce within it and help perpetuate both its negative and positive aspects, versus a focus on the experiences of learners as is paramount when these informal and unscripted interactions are seen as the learning environment. An example of the informal curriculum would include the learning that might happen on an individual rotation in a particular clinical area.

The **hidden curriculum**, a term first popularized in medical education by Hafferty and Franks (5), is distinct from the informal curriculum in that it looks at the higher level of how institutional practice is organized. A relevant example of the hidden curriculum interacting with EDI-AR within residency training might be that if a training program holds mandatory teaching sessions between 5 pm and 8 pm weekly on Wednesdays (as a hypothetical example), then this procedural arrangement might unduly affect learners who are parents or caregivers. There is a link between gender and who shoulders the majority of childrearing responsibilities and therefore to EDI-AR.

The formal curriculum

> Vignette: In journal club an epidemiologic paper is reviewed which talks about racial outcome differences with anti-hypertensive treatments. A racialized resident raises her hand and asks if the paper (which is being actively critiqued by the group) committed the flaw of biologic determinism for the socially constructed concept of “race”, through its reference to the variable as “race”. She asks, “shouldn’t we be saying “being racialized as…” or “experiencing racism as…” as the more correct variable as these terms situate the differences observed within a person’s relationship to society rather than solely within the person themselves.” The supervising attending assures the student that the paper passed peer review and “race” will be the term that will be used in the session.

In the vignette above, there are several important elements with respect to the formal curriculum of learning. Firstly, there is the notion of how race, as a form of human difference is being taught and whether that way of teaching is up to date and in line with current scientific consensus (race as a social construct versus a biological construct).

Secondly there is the notion of critical engagement skills – for instance the opportunity to teach and discuss flaws in peer review processes with respect to EDI-AR. Finally, there was the missed curricular opportunity to engage in transformative discussion with the learner, other attendees and the attending.

As a Program Director, reviewing formal learning involves deliberate attention to all learning materials and objectives. In the clinical environment, there will likely be a great deal of faculty development as well. Material review and faculty development should adhere to the following:

Key Principles

- Avoid stereotyping (e.g. An OSCE station on substance use, where the patient is Indigenous in origin, perhaps repeated in other settings such as tests etc.)
- Diversity as a fact of life: When diversity variables are introduced ensure that they aren't only there to highlight a component of the case (for instance, using a case example for pediatric otitis media where the two parents are Mothers, but this fact is not necessary to understand the presenting complaint.
- Use opportunities to examine systemic racism and other forms of systemic discrimination specific to the specialty (for instance, reviewing papers showing differential outcomes by race or Indigenous status for standard surgeries in an anaesthesia residency program)
- Ensure that there are opportunities for critical engagement: Critical race theory, critical disability theory, Feminist analyses of processes of care, and the like.
- Incorporate structurally marginalized patient viewpoints into learning through well compensated narrative sessions where learners learn from patient experiences.

Action	**Target Audience**	**Notes**
Conduct an EDI-AR curricular and rotation review	Program Director, course and Rotation supervisors	Should be checklist driven and with a goal of identifying learning opportunities within content already covered
Build capacity among teachers	Program Director, teachers in the clinical environment	Significant commitment of faculty development required.
Incorporate New Material	Program Director, curriculum developers, teachers, learners	Critical race theory, Queer theory, Critical disability studies, Feminist analyses of medicine, etc. May require outside expertise.

Action	Target Audience	Notes
Incorporate EDI-AR into existing structures of educational quality improvement	Program Director, curriculum developers, teachers, CQI experts	Build in an EDI-AR checklist into processes of cyclical review.

The informal curriculum

> Vignette: Dr. Young, a senior cardiologist and division director, comes to your office very exasperated. As the internal medicine program director, you contacted him because a female resident came to you to discuss an occurrence between Dr. Young and herself during her cardiology rotation. He called her a “fine gal” and may have once called her “sweetie” but does not personally remember. The program director said that the resident does not want to proceed through official complaint channels but has given her permission for the program director to speak with Dr. Young.“I was only trying to commend her on her performance during the rotation. I love women. I am not sexist. In the past this would have been a compliment and people just weren’t so sensitive. How is a guy to keep up with changing norms?”

The occurrence described in the vignette is a microaggression. Microaggressions are defined as comments or actions, whether intentional or unintentional, which communicate bias and/or prejudice towards persons from marginalized groups (such as racial groups) (6). In the clinical learning environment, such occurrences often occur within at triad or tetrad. As a triad they might include the supervisor/teacher, who may have committed the microaggression, the learner who received the microaggression, and team bystanders who were witnesses to it. Add in the patient as the recipient of the remark or action, with a learner who socially identifies with the targeted marginalized group, and you have the tetrad. Microaggressions are very common in the clinical learning environment and the subject of much discussion in postgraduate medical education. They have been linked to issues of retention of minority learners and mental health outcomes in minority learners. Along with other forms of mistreatment, they are a fundamental threat to the learning environment. Considering the learning environment as the place where the informal curriculum is transmitted, the key messages of such occurrences are to reinforce social hierarchies – racial, cis- and hetero-normativity, patriarchy, and ableism.

Improving and addressing unwanted parts of the informal curriculum such as microaggressions requires regular and enduring commitment on the part of residency programs. Key components to address are:

Action	Target Audience	Notes
Build Capacity	Everyone in the learning environment – learners, teachers etc.	Recognition of microaggressions and allyship skills development
Collect Data	People and processes within the learning environment	Incidents, with regular and transparent review in the program
Ensuring robust systems of Reporting	Everyone in the learning environment	Should be reviewed for whether the process serves the needs
Ensuring a principled approach to the learning environment	Educational leadership, teachers, learners	Goal to have principles of a safe learning environment known to all. Consider constituting an EDI-AR committee

The hidden curriculum

> Vignette: The simulation centre used by the pediatric residency program for mandatory teaching activities is not accessible for persons who are users of wheelchairs. This problem excludes one resident from being able to attend mandatory program activities. Program leadership is unaware of any relevant policies from the faculty of medicine or the hospitals in which training occurs.

The central issue of this vignette is accommodation of difference, in this case, disability. Accommodation is often coupled with another word— “reasonable”. Institutions are expected to engage in reasonable accommodations to support the participation of diverse persons in the activities of the institution. The difficulty is in defining and enforcing notions of what is reasonable, in addition to who gets to decide. Accommodation is an important part of processes of inclusion.

In this case, the hidden curriculum is operative as a means that results in the exclusion of a resident from mandatory activities because no thought has been given to the accessibility of the simulation centre site chosen, demonstrating how policies and institutional organizational structures may result in difficulties for EDI-AR.

Apart from the vignette example above, issues of demographic representation within residency programs also are part of the hidden curriculum. For instance, if a particular program is not attracting or having successful candidates from a particular underrepresented racial, ethnic, gender or sexuality group, this should trigger discussion about potential biases in program attractiveness, recruitment and selection for such

persons. Potential outcomes might include reviewing excellence criteria for the program's inclusivity and responsiveness to societal needs and reviewing and making deliberate changes to the program's selection criteria/processes. Other potential outcomes include the development of special pathways of selection and recruitment for learners from specific groups.

Addressing the hidden curriculum requires a commitment to review processes and procedures within residency programs with changes managed through co-creation with stakeholders. The key elements of such processes of review are:

- When the current situation is seen as "normal" and the change is seen as "inconvenient", the analytic approach should be questioned. The "normal" situation in the vignette above arose in societal and systemic conditions which were profoundly ableist in their orientation (for the example above—the design of the simulation centre did not account for the potential of wheelchair using learners). The tendency to see current processes as "normal" manifest in many ways – appeals to nostalgia ("In the old days…") being common. In reviewing processes and procedures for EDI-AR, it is most helpful to understand them as products of certain social contingencies, and not necessarily "normal" or "natural". Change, then, is viewed as needing to happen because social contingencies have changed.
- Understanding standards of "reasonable". With respect to disability, institutions are typically held to high standards of accommodation.

Action	**Target Audience**	**Notes**
Review of program Policies and Procedure s	Program Leadership Appropriate involvement of stakeholders	Reviewed through an EDI-AR lens
Ensure sources of support for learners from structurally marginalized groups	Program Leadership	
Ensure a commitment to Inclusive Excellence from selection to graduation	Program Leadership, Resident Selection Committee	Review for discrimination and bias in processes of selection, performance assessment, and promotion and design new processes as needed This requires significant reflection and faculty development.

EDI-AR and the Ultimate Program Goals of Residency Education

If we take a societal perspective and look at the desired outcomes of postgraduate medical education, it is to produce the next generation of superbly trained generalists and specialists who are prepared to care for the diverse populations they will serve in the future. Residency program commitment to EDI-AR is easily justified from this perspective. Serving populations well means strong attention to the inequities within society and requires a commitment to center both the margins and the structurally marginalized in how residency education is constructed.

There is another reason why we must address EDI-AR within our residency programs. The social contract between learner and teacher and learner and program is a fiduciary one. Programs and the teachers within them are bound to act in the best interests of the learners who join their programs and seek to be welcome within them. We must create the conditions whereby these learners can bring their whole selves to the work they do and to their learning, in a psychologically and culturally safe environment. Viewed through this relational ethics lens, there is moral imperative to promote diverse human flourishing within postgraduate medical education.

Conclusion

As you read further into this important Program Director companion, you will see the importance of the EDI-AR lens reflected in each of the topics, in each and every one of the chapters. This important work weaves seamlessly and logically through all that we do. We must have ongoing awareness of how this continues to be positively reflected in our work moving forward, with measurable outcomes that we are moving in the right direction for our learners, ourselves and most importantly our patients. We must continue to do better.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

05. The role of the program administrator

Author: Sara Cover

Objectives

At the end of this chapter you will be able to:

- describe the diverse roles of the program administrator
- describe the partnership/relationship between the program director and the program administrator as it relates to improving the efficiency, effectiveness and managerial flow of a residency program
- describe how to provide the program administrator with opportunities to exercise initiative, maximize strengths and develop areas of autonomy, responsibility and growth

Introduction

Every residency program in Canada has administrative support. Although the scope of that support may differ among institutions, and even among programs at the same institution, almost everyone in postgraduate medical education (PGME) would agree that the program administrator (PA) plays a critical role in the success of a residency program. Given the many hats that a PA wears and the fact that those hats come in a variety of colours, sizes and styles, it is important for new PDs to check in early with their PA to understand the scope of the role and how it is defined.

PAs are likely to describe themselves as someone who:

- Coordinates activities and resources in support of the postgraduate program, such as:
  - creating and maintaining the rotation and teaching schedule, in some cases at multiple sites;
  - working with the PD to ensure that all the objectives of the program are met and the program functions efficiently within the structure outlined by the Royal College accreditation standards;
  - keeping all educational program materials up to date;
  - making revisions to program documentation as required and ensuring these are distributed appropriately to the relevant individuals; and
  - supporting committee functioning (e.g., residency program committee, competence committee);
- Is personally and professionally committed to the success of the program; and

- Monitors and supports the personal and professional well-being of residents.

PAs work closely not only with PDs but also with the program's residents, the faculty, the PGME office staff, and other PAs and site coordinators. A major part of the PA's role is completing daily administrative tasks to keep the program running smoothly and ensuring that all goals and objectives of the program are met and that the program functions within the structure outlined by accreditation standards (http://www.royalcollege.ca/rcsite/accreditation-pgme-programs/accreditation-residency-programs-e) and relevant workplace related policies and procedures within an organization or jurisdiction.

The bottom line is that the PAs are often the glue of the program and the source of all sorts of important information. Fortunately for you and for your program, PAs know what's what. They know when things need to be completed. They know whom to contact for assistance. They typically know where the residents are supposed to be and when they need to be there. They know when meetings are scheduled and who is participating. They just know! On the off chance that they don't know, they know where to find the answers.

If you are new to your role as PD, you may be still figuring out how the PA can help you and how you can help them. This chapter serves as an introduction to what you can expect of your program's PA.

Supporting faculty

Supporting faculty is a major part of a PA's role. Complex schedule management is a key responsibility: PAs coordinate everything from academic sessions and journal clubs to rounds and other clinical activities. Many go out of their way to make sure that the faculty have the information they need, when they need it. PAs also assist in creating, coordinating and communicating personalized academic teaching schedules. This includes reminding faculty when they will have a learner with them. They also often have to complete a variety of complex administrative duties in support of the department, special projects and/or senior administrators.

Supporting residents

PAs support residents in a countless ways. For example, they support resident wellness, provide academic support, encourage growth opportunities and support learning development. In fact, it's often the breadth of the PA's support that residents appreciate most.

Supporting resident well-being is arguably a key and valued component of a PA's role. The start of residency is a time of significant adjustment and can be a substantial stressor for learners. Many residents find it difficult to adjust to their new environment. It can be overwhelming for them to figure out how to organize their responsibilities with respect to the program, their family and friends, their health and so on. PAs will often help guide them

through this transition. This includes being there for the residents in a variety of ways, such as serving as a part of their support system and acting as a sounding board. PAs are often a resident's "go-to" person when they have a question or need. If residents have something going on in their personal or professional lives, PAs may be one of the first people to know about it. PAs are often ready to help residents connect with the support that they need.

PAs also help residents become comfortable accessing their academic material as required, and they ensure that residents' clinical schedule reflects what they need to meet the requirements of the program. These processes and procedures are reinforced over the years to ensure that residents have been provided with everything they need to prepare themselves for independent practice.

PAs can also help promote opportunities for residents outside the program. For instance, they may gather and disseminate information from other centres about upcoming fellowships and career options. In addition, PAs may help to coordinate requests for residents to teach junior learners. PAs will also ensure residents are aware of other academic opportunities, such as electives and conferences.

Finally, PAs provide support when a resident is on an enhanced learning plan or undergoing remediation. PAs and PDs work closely together to ensure documentation is accurate and complete. The paper trail may be long, and often a lot of filing and tracking needs to be done to maintain a resident's file. The goal is to ensure residents are well supported on their road to success.

Program design and change

PAs provide significant support when programs are being redesigned and changes are being implemented, such as during the transition to Competence by Design. Once changes have been implemented, PAs continue to ensure that their program is meeting the new requirements. Many PAs thrive in periods of change, as they get to use their creativity to innovate, collaborate and execute new and wonderful ideas for the program.

Scheduling

Another critical aspect of the PA's job is scheduling. PAs participate in the coordination of residents' clinical and academic schedules. This is a huge task, no matter the size of the program, and involves multiple considerations. Once the schedule has been completed it is imperative that it gets communicated to all stakeholders, and this is often the role of the PA. The PA's goal is to make sure preceptors know to expect a given resident and that residents know where to go for each block.

Maintaining the academic schedule will also typically fall within the PA's role. The PA may be responsible for ensuring that facilitators are available and scheduled for sessions, and for coordinating the logistics, including conferencing technology. Frequent communication regarding academic sessions ensures that residents are aware of where and when sessions

will take place, and involved staff need to know that their residents will be leaving the clinic for their protected academic time. In addition, PAs gather and consolidate pertinent prereading material and make it available to residents in a timely manner. Building a schedule involves more than just putting pen to paper. It's a multifaceted process that has been improved and perfected over time. Once PAs are comfortable with the overall schedule, they collaborate with their PD and seek confirmation and/or approval when necessary.

Working with PGME and university staff

The structure of the school will dictate how the program communicates and interacts with other areas of the institution. All postgraduate programs will report to the PGME office at their university. PAs will often interact with the PGME office on the program's behalf and share required information. They will often serve as the information hub for their program, and they will know where to direct questions to obtain answers. PAs liaise extensively with a variety of offices (the list will vary, depending on the university's structure) and act as a resource for many different groups. The PA can also liaise with appropriate offices related to equity, well-being, and help navigate policies regarding occupational health where appropriate.

Administrative duties

PAs need to ensure that the program runs smoothly. They may be involved in many tasks to varying degrees, such as assessing and processing residents' requests for leave and coordinating payments and reimbursements for residents and faculty. Most PAs will do some type of administrative work, although their exact duties will differ from institution to institution.

One very important administrative responsibility relates to the organization of the meetings of various committees, such as the residency program committee and its subcommittees (e.g., the competence committee). Rooms need to be booked, invitations need to be sent and agenda items need to be compiled.

PAs play a major part in establishing, organizing and supporting the competence committee. They will meet with the competence committee chair to map out timelines for the scheduling of meetings on the basis of the residents' progression through training.

Given that PAs are often at the front line of the program, their job may involve a significant amount of communication, including responding to a large volume of email messages on a daily basis. Many of the email messages they handle involve critical/sensitive issues that need to be dealt with. PAs are often entrusted with the authority to address many such issues without involving PGME management or their PD other than copying them on their response.

PAs take care of all the logistical aspects of the meetings, such as booking rooms, inviting members to attend the meetings and advising members of who is doing file reviews. They also pull together residents' files for review. Depending on the institution, this may involve pulling files from various places and collating the documentation, or summarizing reports using graphs or charts (to provide committee members with something that is easier to digest than a lengthy Excel spreadsheet). Essentially, PAs consolidate information to make it easier for the academic advisors to do their job.

The PD and the PA — a dynamic duo

When a PA learns that a new PD will soon assume the helm of the program, many questions may come to the PA's mind: How does this person work? What sort of involvement in the running of the program will the new PD want to have? Will this person respond to email messages within minutes, or is it more likely to take days to get a reply? Will the new PD have time to meet with me on a regular basis? Will I still have the autonomy and decision-making ability that I had with the outgoing PD? How long will it take to build a trusting relationship with the new PD? In the fullness of time, these and other questions will be answered, and the PA and PD get into a groove, but if a new PD is mindful of how their PA is feeling during the early part of their term it can make the transition period a bit smoother and less stressful for both of them.

The best programs are the ones where the PD and PA team establish a good working relationship. These relationships take time and energy to build, but the investment can and does reap benefits for the program overall. The best PA and PD teams have clear expectations of one another and they know the other person will deliver on their commitments. Although it can be challenging, it's crucial for the PD and PA to ensure that they allocate sufficient one-on-one time for working together. Regularly scheduled meetings are the key to a successful working relationship with the PA: they will be one of the most important meetings of the week for both the PD and the PA. It is difficult to pick which of these words is more important: regular or scheduled. In the beginning, the meetings will help the PD and PA to build a strong, trusting working relationship, and they will help the new PD to get to know the ins and outs of the program. As the PD's comfort level and experience with the program grows, these meetings will probably evolve into opportunities to discuss ways to build the program by implementing improvements and introducing innovations. Each meeting should have a set agenda, with both the PD and PA bringing issues to the table. These meetings will also promote job satisfaction as knowledge is shared and ideas are discussed regarding the future of the program. They will help both the PD and the PA to understand each other's goals, and over time their expectations and priorities will be better aligned. These meetings will help to keep everyone informed, minimize unwanted surprises and improve efficiencies.

Setting your program's PA up for success

PDs play an important role in ensuring that PAs are respected and valued in their role. Others will notice when you consult your PA on important decisions, when you give them autonomy to make decisions and when you have their back. Be mindful of how your actions will affect their ability to do their work and to take pride in that work. As the PD, you will help to ensure that the PA has the tools required to do their job well. In some cases, you will also help secure the support of others when and where it is needed. This could come in the form of administrative support, technological support, PGME office support, residency program committee support, competence committee chair support and of course support for professional development. You can also work to help your PA assess and improve their professional development needs through various opportunities for training and capacity building such as the Program Administrators' Conference at the International Conference for Residency Education etc.,

To be successful, everyone needs to receive praise as well as constructive feedback from the people overseeing their work. When problems, gaps or pitfalls in the program requiring attention are identified, it is important that you and your PA work together to find strategies to fix them. You will need to work together to decide on a solution and may even need to present it to the residency program committee for review and/or approval. It may sometimes be necessary to have a difficult conversation with a resident, staff member or faculty member to help build better relationships. In some cases, you may need to talk to other PDs to see if any other programs have experienced similar issues and may be able to provide ideas for solutions. It is also important to create space to debrief challenging or emotional aspects of your work together.

Time management is challenging for everyone, but it cannot be overstated just how critical it is for you to make yourself available to your PA in time of need. PAs value PDs' time and, as such, endeavour to make all meetings meaningful. It is crucial that regular, prescheduled one-on-one meetings remain a priority and that you avoid cancelling these meetings. Email is a useful form of communication, but it's not enough: so much more gets done when there is a verbal conversation.

Finally, be mindful of the wellness of your PA. PAs are known to bend over backward for their residents and to go the extra mile to ensure their programs hum along. It's easy to let them do these things, but their hard work sometimes comes at a cost that should not be overlooked. Work–life balance and wellness are as important for your PA as for everyone else in your program, so check in regularly to ensure that their work is manageable and rewarding. If it isn't, then work with your PA to find workable solutions.

Conclusion

Remember that PAs are proactive, and they'll happily take initiative within your program. Effective PAs see where things are working well and also highlight where improvements can be made. They see where there are gaps or holes in the program and they will make

recommendations and suggest efficiencies to the appropriate people or group, to find solutions. Successful PAs take much pride in their program. Their ultimate goal is to make residents feel valued and to see “their” residents succeed. As such, PAs drive and strive for continuous improvement in the program. They may seek out feedback from the residents to learn what they think is working well and what isn’t, and they may look to the residency program committee for the same type of feedback. The desire to help to make the program the “best of its kind” is a key driver in the PA’s performance. This translates to unparalleled effort and high job satisfaction.

These few pages are just the highlight of what PAs across the country do for their programs. It’s impossible to overstate the impact that a positive relationship between you and your PA will have on your program. Given the ability and freedom to collaborate and innovate with each other and with other stakeholders, you will both experience personal growth and success. Working hard, working together and working with pride will deliver winning results for everyone involved.

Further reading

- Accreditation standards. http://www.royalcollege.ca/rcsite/accreditation-pgme-programs/accreditation-residency-programs-e (http://www.royalcollege.ca/rcsite/accreditation-pgme-programs/accreditation-residency-programs-e)

A new system of residency accreditation, CanERA, was fully implemented and applies to all accreditation reviews. For more information about CanERA, including access to the General Standards of Accreditation for Residency Program and General Standards of Accreditation for Institutions with Residency Programs (“CanERA general standards of accreditation”) please visit www.canera.ca (http://www.canera.ca/canrac/home-e).

Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

06. Succession planning and handing over

Author: Robert Anderson, MD, FRCPC

Objectives

At the end of this chapter you will be able to:

- describe strategies to facilitate a program director's transition out of the position
- describe key knowledge areas to ensure an effective handover to a new program director
- identify sources of support for the new program director

Case scenario

Dr. Lise Boucher was pretty excited as she set up pictures in her new office. Becoming a program director (PD) was a job she wasn't quite sure that she was ready for, but she bravely took it on. She had always had an interest in medical education and had won the teacher of the year award for the past 2 years. The residents seem to really like her and confide in her regularly. She thought that she might apply for the site coordinator position when it became available but when she was encouraged to apply for this position, she jumped at it.

Just as she finished unpacking, Dr Sylvie Chan, the outgoing PD, stopped by to hand over. She showed Lisa the password for the computer where the resident files are kept and gave her a schedule of meetings and activities for the year. Lisa was a little shocked by the number of meetings outside the program but was excited to hear that everyone was very supportive. Especially the national PD group. Sylvie said that postgrad tends to help with the budget and let Lisa know that there were currently two learners in difficulty. She showed Lisa these specific learner files and explained their learner support plans. "It's a lot to take in, I know!" she said with a laugh. "Not to worry. You got this! I'm so glad you are taking over from me. You're great! I wasn't sure who would want this job and I'm so happy you're doing it. I'm heading off on my very well-deserved leave after the last eight years as PD!" Just before Sylvie left, she gave two more pieces of advice: (1) plan a big holiday after you are done being PD and (2) start finding your replacement now.

Sylvie left with a smile on her face. Lisa sat in the silence of her new office with a mix of emotions. Who knew drinking from a fire hydrant could be so quiet! She opened her computer and typed in "succession planning," determined to do this right.

Introduction

Residency programs are complex, high-stakes, dynamic enterprises. Residents are full-time employees who are expected to both deliver service and learn. Programs and institutions have various reporting structures, budgetary demands and accreditation requirements. All of these elements operate in a national context of societal needs and educational frameworks. Ensuring that there are people with the appropriate skills and abilities to lead is critical to the success of any program. Despite this need, clear succession and handover plans are often lacking. As program director (PD) you have the ability to create, influence or advocate for systems and structures to ensure the security of your program and ease the transition to the next leadership. This includes thinking about effective succession planning, creating systems to curate and access program data centrally, and identifying future leaders and helping them develop.

Succession and replacement planning

Planning for the future is a program priority, not a PD priority. PDs may or may not have direct influence on the operations of the department but they are looked to as leaders and often seen as future departmental leaders. This means you have a voice!

Key term	**Definition**
Succession planning	An organization-level proactive approach to deliberately ensure that the right *skills* and *abilities* are present at each *level* of the organization
Replacement planning	Identifying a *person* who can take over with minimal handover or support at *short notice*
Talent management	Identifying *future leaders* and helping them develop to be *their* best through mentoring and support structures

Succession planning

Succession planning is a proactive process that an organization invests time and energy in to ensure that the right skills and abilities are present at each level. It is less about the attributes of a particular person and more about the needs of the position. Talent management, recruitment, mentoring and continual review of the skill requirements of the position in the dynamic environment are all important parts of an effective succession plan. One way to facilitate succession planning is to deliberately create positions that have overlapping responsibilities and key skills. *Competence committee chairs* may need to be able to lead, focus faculty members and keep abreast of national trends. *Site coordinators* meet with residents in difficulty and understand scheduling and the interface between academics and clinical responsibilities. Some programs have *assistant PDs* who get involved with curriculum mapping, national committees and some of the behind-the-scenes work. To facilitate faculty members' development, individuals can be initially recruited to

positions with a smaller scope of responsibility; this can be part of a deliberate talent management approach and can help to create a pool of future leaders. Businesses with robust succession planning strategies identify the skills required for each job, develop these skills broadly among their future leaders and constantly re-evaluate their plans to ensure success. Academic departments should think similarly. Recognizing that there is strength in diversity, care should be taken to select talented individuals from diverse backgrounds including but not limited to race, gender, gender identity, and sexual orientation.

Replacement planning

This is the “lottery ticket question.” Who would take over for the PD, or a person in another key position, if they unexpectedly were unable to do their job (e.g., if they won the lottery). People in key positions may need emergency backup for either the short or long term. Thought should be put into both scenarios. Appropriate replacement planning means having the name of a specific person who is ready to take over in an emergency. This person will need to have the requisite knowledge and experience as well as access to any confidential information needed for immediate decision-making.

Making the job amazing

Being a PD can be very rewarding and fulfilling, but it can also be exhausting, stressful and even a little scary at times. Remember, the face that you show to the world is the only one they see. If you focus on the amazing and positive aspects of the job, you will be seen as a role model to future leaders. If you regularly complain about the challenges, you may find that is all they hear. Focusing on the positive not only inspires others it can also inspire you too.

Handing over

You have had an amazing career as PD and it is time to hand the job over to the next generation. During this time there is a lot to consider. What needs to be handed over? How can you avoid bias? What needs to be talked about, and what just needs to be accessible? What is your role going to be in assisting the new PD? How much overlap should there be?

Advanced planning can help you to transfer your mountain of knowledge to the next PD more effectively.

Program data

Handing over program data involves more than just sharing the computer password. Most if not all program-level data are now housed electronically. If you keep a future transition in mind as you are making decisions today about how this information will be stored and accessed, you can make the life of the next PD much easier.

Emails and other communication data

Many programs are moving toward a “position” email account (e.g., PDPeds@sth.com) to allow curation of program-related communication and prevent work emails from being stored in personal accounts. This can help the next PD to easily access the “institutional memory” contained in emails. A word of caution for these accounts: keep them tidy and organized. Don’t keep anything that isn’t needed. Keep only the communications that are useful to the program. Confidential information needs to be thoughtfully curated to ensure that individuals’ privacy is respected. Remember as you store emails that you don’t know who will be reading them in the future.

Resident files, policies and processes

Often resident files and information on policies and processes are stored at a program or institutional level in a fashion that makes the documents accessible to people who have the appropriate privileges. Navigating who should have access can be challenging. Consider creating a map or how-to guide for the next generation of leaders in your program. Also, be clear about who is creating these systems and maintaining them: they need to be kept up to date. This includes making sure that unneeded or outdated versions are removed, as the next PD will not necessarily recognize which is the old version and which is the new one.

Relationships and connections

Residency programs exist in a network of relationships both locally and nationally. There may be programs that you rely on for support and key collaborators who have been helpful to you. When possible, plan on personally introducing the new PD to these programs and people. The history you have built as a PD can help warm the water for the next person. This will also help ensure that the new PD knows who to contact and that the programs and collaborators know to send their communications to the right person going forward.

History and wisdom

You have developed, or will develop, a world of expertise in regard to your program and your residents. This will be incredibly valuable to the next PD. Here are a few places that you can share that wisdom deliberately. Be mindful of how you frame these issues. Framing them in a positive way will always serve the next PD, the program and the learners best.

Resident performance

Unless your program is very large, you will probably know your residents better than anyone else. Share insights that will help your successor to better support the learners, while respecting the residents’ privacy.

Key program issues

Will your residents do 24-hour call? Will final-year residents have protected time for research? Have your residents reported any incidents of racism, harassment, or discrimination? What were the outcomes? You will make many decisions over your tenure.

Some of these may be contentious. It may be worth explaining to the next PD your rationale for some of your key decisions so that your successor understands the context and the associated issues. They may disagree with some of your decisions, but at least they will understand why you made them. To refresh your memory, consider reviewing the minutes of your residency program committee's meetings as well as program policies.

Wellness tips

Did you struggle? Probably. Most PDs struggle at some point. It is OK and probably helpful to normalize that and share with the next PD what wellness strategies you found helpful. How did you protect your time? Where did you fail and how did you grow? How did you maintain healthy boundaries, to balance being accessible to the learners and protecting your personal life? These tips may very well be the most helpful thing you can pass along to the next PD. They can also open the door for the next person to be open and ask for help when they may be struggling.

Ongoing supports

There are many different resources that a new PD can lean on for support. Creating a list of these resources and sharing it may be very valuable to your successor. Some potential resources include the following:

Local program support

Administrative assistants, residency program committee members, chairs, postgraduate medical education (PGME) offices and the previous PD all can provide unique lenses on the program.

External support

National specialty committee leaders and other program directors have a vast collective experience and are usually keen to help in any way they can. PDs can also consider engaging an executive coach who can act as a confidential thinking partner when difficult decisions have to be made.

Faculty development resources

Programs like the Royal College's Workshop for New Program Directors provide a crash course on the roles of a PD. There are several online resources that are broadly accessible on the websites of the Royal College, other programs and other colleges. PGME offices often have access to resources for new PDs and are invested in their success.

Equity, Diversity, and Inclusion resources

Share a list with your successor.

A word about walking away

You may find, as many others have found, that being PD becomes part of your identity. You want your program to be successful forever! You can be a valuable resource to the future leaders of your program. However, your presence may also unintentionally limit their ability to lead. Work with the next PD to find a space that enables you to help them, but remember that you are not leading any longer. You stewarded the program as far as you could. It is time to hand it over.

Further reading

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2. Luby V and Stevenson JE. 7 Tenets of a Good CEO Succession Process. Harvard Business Review. Dec 2016. Available from: https://hbr.org/2016/12/7-tenets-of-a-good-ceo-succession-process (https://hbr.org/2016/12/7-tenets-of-a-good-ceo-succession-process)

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1. Rothwell WJ. Replacement planning: a starting point for succession planning and talent management. *Int J Train Dev*. 2011;15(1):8799.
2. Conger JA and Fulmer RM. Developing your leadership pipeline. *Harvard Business Review* Dec 2003.

Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

07. Educational Design

Author: Marcio M. Gomes, MD, PhD, FRCPC

Objectives

At the end of this chapter you will be able to:

- plan educational activities following the five steps of educational design
- describe how starting with clear, well-defined program outcomes helps with curriculum planning

Case scenario

Dr. Tremblay is the program director of a large anatomical pathology residency program with 20 residents. He has been noticing that some of the residents are not progressing on a particular core entrustable professional activity (EPA), “presenting cases at multidisciplinary cancer conferences.” To gain a better understanding of the issues, he takes a look at the ePortfolio dashboard and realizes that there are very few observations in which the residents were entrusted to perform this EPA, even at the end of the core stage. Because this pattern is only evident for this EPA, Dr. Tremblay believes that the residents are performing poorly because they are struggling with communicating with clinical colleagues or on presenting to a multidisciplinary audience. He decides to do something about this. He invites a colleague, Dr. Nguyen, who is known to effectively represent pathology at tumour boards, to brainstorm over a cup of coffee. He tells her about his initial plan, which is to invite someone from the faculty development office to give a workshop on communication skills and to invite Dr. Nguyen to give a lecture on how to prepare for and present at tumour boards. After a short silence, Dr. Nguyen asks, “Do you know why they are getting low ratings?” She continues, “If your diagnosis is wrong, you will give a treatment for a disease that doesn’t exist, and their symptoms will persist.”

Introduction

What is the desired outcome of the activity that you are planning? Whether it is a problem that needs fixing, a new EPA, or a goal to be achieved, the most important aspect of designing an educational activity is to begin with the end in mind. In the competency-based medical education (CBME) era, desired outcomes should be expressed in terms of measurable behaviours, well-defined abilities that learners will be able to demonstrate as a

result of learning.[1,2] In the case scenario, the desired outcome is not high ratings in an EPA but rather the ability to represent pathology at tumour boards. With the desired outcome in mind, you can identify the real issue, refocus and determine a path to achieve the end goal.

The five steps of educational design[1] can be applied to address various educational needs that you will encounter as a program director.[1] For example, they can be used to prepare a one-to-one clinical encounter in the workplace, design a single educational activity, organize an academic half-day, create a new clinical rotation or restructure an entire residency program, as in the implementation of Competence by Design. Regardless of the type of educational activity you are trying to create or improve, you first need to identify and understand the issue you want to address. What is the outcome that you are trying to achieve? Is there a (real) problem? If so, what is it? Is it a problem worth devoting your limited resources to (time being a big one)? Will an educational activity help you fix the problem or achieve the desired outcome? Once you decide to attack a well-defined educational goal, the five steps provide an effective process to achieve your goals.

The five steps of educational design

1. Conduct a needs assessment

If you have decided that an educational activity is a good treatment for the problem you have identified, it is because you have established that your learners' performance can be improved by working on their knowledge, skills or attitudes. You now need to understand why their performance is subpar or what are some new abilities that they need to develop. Given your expertise, you might have a good idea just by looking at the situation and the symptoms, but you still need to take a history, perform an examination and maybe order some tests or discuss with a colleague to make sure you have correctly identified the cause of the problem. As illustrated in the case scenario, if you make the wrong diagnosis, you will prescribe the wrong treatment and you will not achieve your desired learning outcome.

There are many tools and strategies that you can use to identify specific learning gaps. Given that people are not reliable at assessing their own performance, it is a good strategy to look for external data first, such as expert opinion (you can talk to your colleagues) or markers of performance (quality indicators, previous assessments, chart audits).[1,3] You can also assess your residents' performance as it relates to the problem at hand using tools such as a multiple-choice questionnaire or multisource feedback. The advantage of assessing your residents' performance is that it will help you sort out whether the problem is a matter of knowledge, skills, attitudes or a combination thereof.[1,3]

Finally, it is essential to ask for the learners' input. Gauging their perspectives regarding the problem will not only provide face validity to the process but more importantly will help you to gain insight into their attitudes, the hidden curriculum and the learning environment. You can do this using questionnaires (e.g., electronic surveys) or focus groups. Whatever

tool you choose, it is important to get expert assistance. The postgraduate medical education (PGME) office or department of medical education at your institution is a good place to start.

It is also key to recognize that some residents may not perceive a problem to begin with, particularly when it hasn't affected them directly. For example, non-BIPOC (black, indigenous, person of colour) residents may not recognize the extent that racism within the healthcare system affects their BIPOC patients and colleagues. As such, targeted engagement with residents or communities is often important when gaining insight into issues focused on equity, diversity and inclusion (EDI). Also, reflecting on your positionality to an issue (e.g., a straight cis-gendered PD approaching a concern about LGBTQ+ care) should lead you to partnering with others who may be more knowledgeable and/or have lived experience.

2. Create learning objectives

Once you have defined the problem and identified the learning gaps that need to be addressed, put into words what your learners will be able to do after they complete the educational activity that you are planning: these are the learning objectives. Ask yourself or your team: If the learners acquire these competencies, will the problem be solved? Learning objectives must match the needs and be very specific. Focus not on what the teachers want to teach but on what the learners need to learn. Learning objectives must be determined by curriculum developers and provided to the facilitator of the educational activity.

An acronym that is commonly used to develop learning objectives is SMART: learning objectives must be *specific* (they must address the particular learning gap that you have identified), they must be *measurable* by some sort of assessment (that you will create), they must be *achievable* by the learners with the available resources (taking into consideration the magnitude of the learning gap and the availability of time, funds, space, people, etc.), they must be *relevant* to the initial problem and the program's goals (will the educational activity fix the problem?), and they must be *time bound* so you know when to expect the results (e.g., at the end of a lecture, series of workshops or entire rotation).[4]

Depending on the needs, learning objectives might target different domains (cognitive, psychomotor or affective). They should be conceived in a progressive manner to provide scaffolding for learners to achieve higher order skills as the educational activity unfolds. Bloom's taxonomy of educational objectives is one of the most commonly used conceptual frameworks to write objectives in a sequential manner, from factual knowledge and understanding of concepts to application in problem solving and analysis of real or simulated scenarios, according to the developmental stage of the learners.[5] The taxonomy proposes a list of action verbs that should match the ability that you want your learners to develop after going through your educational intervention.

3. Choose instructional methods

One of the most common (but inappropriate) practices in educational design is to start the planning process by defining the instructional method, which typically is a lecture by default. This is not surprising, because lectures allow instructors to deliver information; they are familiar to teachers and learners; they are easy to prepare, deliver and attend; teaching rooms are usually set up in theatre style; lectures require few resources and the logistics are straightforward; it is easy to assess learners and to evaluate the intervention; a number of checkboxes can be checked effortlessly (accreditation, to-do list, your conscience, etc.); and delivering a lecture will surely decrease your anxiety by giving the impression that you have addressed the problem. But if learners attend a lecture, will their needs be fulfilled, will they develop the abilities you described as your learning outcomes, will their performance change and will the problem that you identified be fixed? In most cases, lectures are an over-the-counter treatment of symptoms that will not address the underlying cause of the problem. Also, they are not the best use of your teachers' highest value (experience) or most scarce resource (time)! Information is now widely accessible, and the primary role of teachers is to use their practical expertise to facilitate knowledge translation and coach trainees, not to deliver information.

Instructional methods need to match learning objectives that in turn address the needs of the learners, so that learners' performance is changed and the problem is solved.[1,3] At first glance, it seems like choosing instructional methods should be simple, but it is important to enlarge the instructional palette of your program and vary your tools.[1,3] For factual knowledge, reading a text or watching a tutorial might do the trick; for comprehension, a flipped classroom or interactive lecture will probably suffice; for application, you might need a case-based discussion or role playing; psychomotor skills will probably be best addressed by simulation exercises; and for attitudinal change on a sensitive matter at the workplace you might need longitudinal coaching. A number of resources are available to help you determine the most appropriate method to meet your objectives.[1,3] Your local faculty development and PGME offices are invaluable resources to assist you in the application of new methods.

As you start to follow these steps, you might realize that you will require a number of spaced and varied educational interventions to fix the problem. You may initially have thought you were a lecture away from redemption, only to find out that you need to embark on a journey to get to the promised land. But do not get discouraged. Squeezing unrealistic objectives into a one-hour unidirectional, unimodal and passive teaching session has unfortunately been ingrained into educational practice since the first lecture ever, but effective education is the product of a well-designed and deliberate process. And you are the project manager.

4. Assess learners' performance

In education, the term *assessment* refers to the assessment of individual learners (compare this with the term *evaluation* in the fifth step below). There are a variety of assessment methods and instruments available, but in essence all of them try to answer the same

question: Are the learners able to demonstrate the desired learning outcomes/competencies? Therefore, your assessment methods need to provide a measurement of learners' achievement of the specific learning objectives of the activity: factual knowledge and comprehension can be tested with multiple-choice questions or short-answer questions, application of knowledge can be evaluated using oral examinations with case-based discussions, psychomotor skills might be observed on simulation exercises, assessment of communication and collaboration skills will be better achieved from multisource feedback, and performance of an entrustable professional activity (EPA) from beginning to end usually require observation in the workplace.[6] Once again, you will probably need to broaden your assessment palette, and you might need to mix and match different methods depending on the learning objectives of the activity, but you will not need to reinvent the wheel. There are easy-to-follow guidelines that will help you to find the right assessment methods and make your task less daunting.[6] As per the advice given for the needs assessment, this is another important opportunity to consider the positionality of the assessors of a resident's performance and how this may impact assessment.

The science of assessment is broad and complex, but there are some general principles that can be applied to any assessment situation. One of the frameworks used is CARVE:[7]

- *Cost*: What effort and resources are required for the enterprise? (Remember to account for the time it will take.)
- *Acceptability*: Is it acceptable to learners, teachers and other stakeholders?
- *Reliability*: Does it provide the same results on repeated measurements?
- *Validity*: Does it measure what it is intended to measure?
- *Educational impact*: Does it help solve your problem?

With the Canada-wide implementation of Competence by Design (CBD) in PGME, workplace-based assessment (WBA) has become a cornerstone of any program of assessment.[2] WBA requires the observation of residents' performance while they are performing EPAs. These observations are opportunities for supervisors to use their experience and expertise to coach learners so they can progress to their next developmental stage. This "assessment for learning" strategy is primarily an instructional method, but there is a component of low-stakes assessment. As you collect a large number of these small biopsies of performance, you provide robust evidence for the competence committee to make a decision on each resident's achievement of competence. Therefore, it is important to train supervisors and learners on how to perform and document WBA (i.e., invest the required resources and engage stakeholders), to ensure that your supervisors are assessing the right thing in the same way (i.e., the assessment will be valid and reliable) and that learners will benefit as much as possible from the clinical encounter (i.e., the educational impact of the encounter will be maximized).

5. Conduct a program evaluation

In education, the term *evaluation* usually refers to the evaluation of an educational activity as a whole, whether it is a lecture, a rotation or an entire residency program. Once again, regardless of the activity you are trying to evaluate, you will be trying to respond to the same basic questions: Did it work? Why or why not? What worked well? What could be improved?

In terms of the first question, the most commonly used framework to evaluate the educational outcomes of an activity is Kirkpatrick's framework of learning outcomes or one of its adaptations:[8]

1. Did learners like it? (They came, participated and were satisfied.)
2. Did they learn? (Their knowledge, skills or attitudes improved.)
3. Did they change their behaviours? (They applied their new skill set in real life.)
4. Has it improved patient outcomes? (Their improved behaviours translated into better care.)

Although every component is important and they are all interrelated, it is difficult to determine whether patient outcomes, or even behaviours, have changed as a direct consequence of a specific educational activity. Furthermore, the effort required to demonstrate this is usually undertaken as part of a research project and is not part of the daily job of a program director. Therefore, it is usually appropriate to create well-designed evaluations that focus on learners' satisfaction and learning. It is worth noting though that some educational activities, such as cultural safety or anti-racism training, purposefully move people out of their comfort zone as part of the experience. This is done because the discomfort often fuels self-reflection and eventual behavioural change. As a result though it is important to engage a skilled facilitator in these circumstances. They may be better able to evaluate the connection between discomfort and possible lower ratings.

To get a better picture of your educational intervention or program, it is important to use the lens of continuous quality improvement. Looking solely at the outcomes is not going to help you understand and fix what is not working well or improve your already successful strategies. For instance, if the learners' performance did not improve, it might be because the instructor did not have sufficient time to prepare the session, the learners did not attend the session or the assessment method was inadequate. The logic model is one of many approaches to program evaluation.[4,9] It allows you to take a snapshot of your program and determine where you want to focus your evaluation and improvement initiatives. It looks into the following elements:

- Inputs: the available resources, including time, personnel and equipment
- Activities: all planned activities, including advertising, educational sessions and evaluations
- Outputs: all activities that actually took place, including the timing and type of advertising, the number of people who participated in the activity and the number of

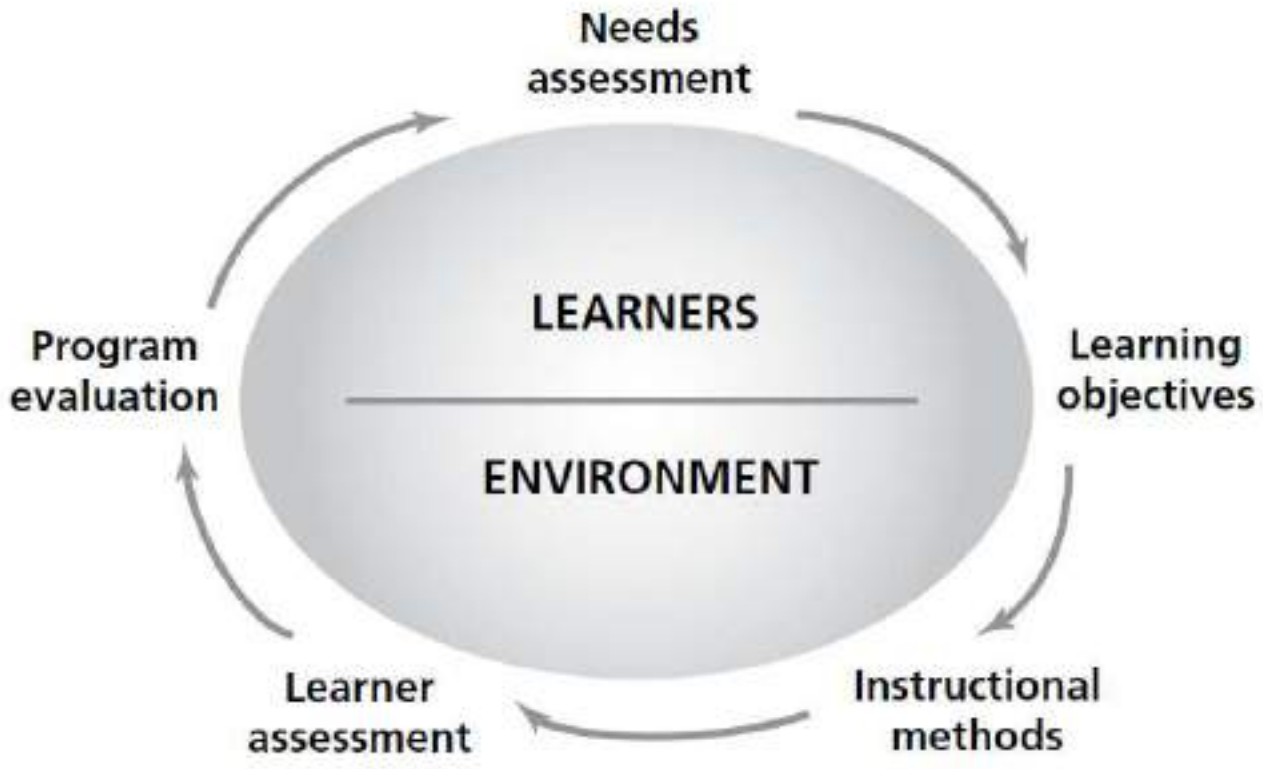
people who completed the evaluations
- Outcomes: short-term and long-term, including intended learning outcomes as in Kirkpatrick's framework, and unintended outcomes

Mapping out your educational activities in a logical manner will help you to plan, implement, evaluate, improve and advocate for your program.

The program evaluation closes the five-step cycle of educational design and helps you to prepare for the following cycle. In essence, it will go backward through the educational design process and ask the following questions:

- Are we able to demonstrate that the learners achieved the desired learning outcomes?
- Was the instructional method designed to address the learning objectives and delivered as planned?
- Were the learning objectives specifically developed to address the learners' needs?
- Were the needs of the target audience clearly identified and relevant to the original problem?
- Have we fixed the problem? If not, why not and what's next?

Figure 5.1



Sherbino J, Frank JR, editors. Educational design: a CanMEDS guide for the health professions. Ottawa: Royal College of Physicians and Surgeons; 2011.

Tips and challenges

Tips

- Focus on the end goals or the actual objective, not the mean goals or the steps and activities you need to take to get you to the end goal.
- Make a proper diagnosis before embarking on a resource-intensive journey.
- Mind the gap. No educational activity is effective in and of itself. It involves a dialogue with the audience. The lack of a proper needs assessment is at the root of most (and the most) ineffective educational activities.
- Assess your assessment and CARVE out a solution.
- Collaborate, do not reinvent, be logical and passionate.

Challenges

- Time (yours)
- Time (your coworkers' and residents')
- Time and time again

Conclusion

The five-step process of educational design is an effective way to achieve your desired learning outcomes. But it is a process, and like any other process it requires time to be perfected: not time in terms of the natural passage of months and years, but time in terms of the number of times you apply the process and as a resource that you invest to design, implement, evaluate and reflect on the program and the process itself. Think big, but start small. If you are new to the game, begin by conducting a needs assessment, trying a different instructional method or using a new assessment instrument, and build up your skills. Canada is blessed to have a large number of qualified clinician educators, and there is no doubt that you will find a resourceful community at your institution that can mentor you. As you negotiate, manage and invest your most precious resource, the process of conducting proper educational design will eventually become a routine for you, and you will embark on a virtuous cycle that will pay dividends: your program will improve, less remediation will be required, your faculty's skills will grow and so will yours, you and your team will feel confident and engaged, new career opportunities will arise, and so on. Begin with the end in mind and enjoy the ride!

Further reading

- Sherbino J, Frank JR, editors. *Educational design: a CanMEDS guide for the health professions*. Ottawa: Royal College of Physicians and Surgeons; 2011.

The basics. This step-by-step guide to educational design expands on each of the topics covered in this short chapter. It provides very practical tools and elaborates on their specific indications, contraindications, advantages and disadvantages. It also includes an entire section on implementation.

- Thomas PA, Kern DE, Hughes MT, Chen BY, editors. *Curriculum development for medical education: a six-step approach*. Baltimore: Johns Hopkins University Press; 2016.

A classic. It sets out the approach known as the Kern's cycle and includes implementation as one of the steps of educational design. It provides a slightly different perspective that will help you shape your own.

- Van Der Vleuten CP. The assessment of professional competence: developments, research and practical implications. *Adv Health Sci Educ*. 19961(1):41–67.

A dive. In this seminal paper, Van Der Vleuten introduces, describes and discusses his conceptual framework of assessment that includes the five components of the CARVE acronym. Although somewhat denser than the other resources, it is a good follow-up for those wishing to do a deeper dive on assessment after reading educational design books.

- Kellogg WK. *Logic model development guide*. East Battle Creek (MI): W.K. Kellogg Foundation; 2004.

A tool. The Kellogg's guide is an invaluable resource for beginners who want to start using the logic model to plan, implement and evaluate educational activities. It is a one-stop shop: at the same time thorough and practical, it will become a favorite on your bookshelf (physical or virtual).

- Van Melle E. Using a logic model to assist in the planning, implementation, and evaluation of educational programs. *Acad Med*. 2016;91(10):1464.

A page. Once you become familiar with the logic model, you will probably hang this one-pager on your wall and consult it often while designing on the fly or reminding yourself of the big picture.

Case resolution

Dr. Tremblay decides to unpack that EPA and look into the individual assessments. Unfortunately, there are very few narrative comments about the learning gap and almost no improvement suggestions. He decides to organize separate focus groups with residents and supervisors to better understand the problem. He learns from residents that they are not getting feedback after presenting at tumour boards, while supervisors say that residents do not know how to tailor their presentation to the specific audience, giving too much pathology detail and information that is irrelevant to decision-making. It seems to Dr. Tremblay that the best antidote is to train staff on how to coach residents.

In consultation with Dr. Nguyen, he decides to pilot mandatory tumour board briefing and debriefing sessions for residents at the core stage. They start collecting multisource feedback to assess residents' performance at tumour boards. Dr. Nguyen facilitates a faculty development workshop including demonstration, case discussions and role playing. At 3 months a follow-up session is organized for sharing best practices and challenges, and at 6 months a program evaluation questionnaire is sent to residents and supervisors. Dr. Tremblay cannot wait to analyze the responses and correlate the multisource feedback results with the EPA ratings from the dashboard.

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3. Thomas PA, Kern DE, Hughes MT, Chen BY, editors. *Curriculum development for medical education: a six-step approach*. Baltimore: Johns Hopkins University Press; 2016.
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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

08. CBD and CanMEDS: an example of curricular change

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Objectives

After reading this chapter you will be able to:

- describe a practical framework for the implementation of a curricular change using Competence by Design as an exemplar
- identify areas of challenge with the implementation of a new curriculum
- describe key content changes in CanMEDS from 2005 to 2015

Introduction

Although the road to curricular reform may be a daunting one, there are plenty of resources available to make the journey easier. The best tools you have at your disposal are those around you: *you are not the first program director (PD) to venture a change in your program*. To help you as you embark on this task, we present some lessons learned from our Competence by Design (CBD) journey.

CBD is the Royal College approach to competency-based medical education (CBME), the required curricular reform that respects the uniqueness of the resident's journey through learning and attaining competence. This novel approach to teaching and assessment utilizing CanMEDS milestones and entrustable professional activities (EPAs) enables regular specific, low-stakes assessments of residents, and more frequent resident review by competence committees, to support resident learning and progression. There are many factors to consider for CBD success that are crucial to resident achievement of competencies and promotion through the stages of training as well as successful program accreditation.

What is required for success in Competence by Design?

- Standardized implementation processes (Royal College, postgraduate medical education [PGME] office)

- Curated resources (Royal College, PGME office)
- Administrative support (PGME office, program)
- Program collaboration, sharing of best practices
- Engaged program director and lead for Competence by Design
- Engaged assessors (residents and faculty)
- Functional ePortfolio with reporting/analytic capabilities
- Engaged and functioning competence committee

Prepare for the change

Assemble and prepare your team

Overhauling your entire program is likely to seem like a daunting task to complete, especially if you try to do so on your own. As you prepare for any curricular reform, especially a big one like CBD, it is important that you assemble a team to work alongside you: identify a lead who has an interest in education; engage those who will be affected by the change (e.g., competence committee members to assist with establishing the structure and function of the competence committee); collaborate with your program administrator; consult with other PDs; and review resources that are provided to you, often by your postgraduate medical education (PGME) office (Figure 6.1).

Preparing for change is everything. Give yourself sufficient time to plan and then to execute on that plan. For a large-scale change such as CBD implementation, start at least 12–24 months before your scheduled launch date. Throughout the change process, continue to power through, even though you may feel like the only cheerleader in your program. It is important to continually engage your faculty in preparing for the change, as their engagement will pave the way for the program's success.

Figure 6.1: Multiple stakeholders will play a role in you program's curricular change.

Consult your resources

There are often many resources available to help you make curricular changes. Make a point of scanning your usual and not-so-usual sources of support. In our experience, investing the time to find out what already exists should save you a significant amount of effort. For example, the Royal College's CBD website (http://www.royalcollege.ca/rcsite/cbd/competence-by-design-cbd-e) has an abundance of online resources that can link to theoretical information and hands-on tools. The (http://www.royalcollege.ca/rcsite/cbd/competence-by-design-cbd-e)*CBD Resource Directory* (http://www.royalcollege.ca/rcsite/cbd/cbd-tools-resources-e) is a central repository where you can search for specific areas of interest within the topic of CBD, with videos, presentations, handouts, tip sheets and more. The *CBD Implementation Planner* (https://www.royalcollege.ca/rcsite/documents/cbd/cbd-implementation-planner-e)(found in the Directory) is a useful organizer with checklists for each stage of CBD preparation before launch. Activities in the checklists are grouped into three categories: team and resources, structure, and capacity building.[1] Another key resource that the Royal College has developed is *Competence by Design (CBD) for Program Directors (https://www.royalcollege.ca/mssites/cbdpd/en/content/index.html#/),* a practical, modular-based resource designed to assist PDs with CBD implementation.[2]

Don't forget to also explore resources at your institution. For example, to assist local programs, the Office of Education for the Department of Surgery at the University of Ottawa developed a standardized framework for the implementation of CBD. The *Competence by Design (CBD) Manual* was made available free for download as an Apple Book and proved to be very helpful as we prepared for CBD, in part because it outlines practical key steps for implementation and provides PDs with a playbook and templates for CBD.[3]

PGME offices at each academic institution will have their own resource library to assist with curricular changes.

uOttawa department of surgery CBD manual

1. CBD Readiness
2. CBD Structure & Organization
3. EPAs & Milestones
4. Rotation Planning & Curriculum Mapping
5. ePortfolio
6. Competence Committee
7. Faculty & Resident Development

Link to the uOttawa department of surgery CBD manual (https://books.apple.com/ca/book/competence-by-design-cbd-manual-office-education-department/id1472943996?mt=11&app=itunes)

Develop your faculty

It is important that each program curate their own collection of resources that will aid in their local faculty development. Presentation of such materials at teaching rounds and relevant meetings that have some time dedicated to the upcoming changes will engage your faculty members and get them talking about the changes at hand. Recruitment of educational leads from other programs that have already made similar changes is another great way to hear a different and reinforcing voice. Remember, there's no reason you have to reinvent the wheel!

Faculty engagement is not a one-time event at the beginning or end of a change. Although faculty development is certainly important early in a change process as a way to socialize an idea, it is also important to have a plan to communicate with faculty and trainees regularly and over time as the change unfolds. Holding sessions on the important pillars of the change is a valuable way to arm faculty with much-needed tools. For example, when implementing CBD, we found CBD 101 workshops, feedback, coaching and the development and distribution of other CBD promotional materials, such as posters, lanyards, and stickers for iPads, assisted program members with EPA recall.

Faculty development topics for Competence by Design

- What are the basics of Competence by Design (CBD), milestones and entrustable professional activities (EPAs)?
- What are your specialty-specific milestones and EPAs?
- What is the faculty's role in CBD? How will CBD affect clinical workloads?
- What are the residents' responsibilities in CBD? How does CBD affect resident learning?
- How should you complete an EPA assessment? What makes a good assessment?
- How does bias, such as racism or sexism, show up in assessment? What training is available for faculty to prevent bias?
- How do you access your ePortfolio and navigate an EPA assessment? How do you contact IT for support?
- How should you provide coaching to residents?
- What is the structure and function of your competence committee?

Develop your residents

Resident development is an integral part of any curricular change. It is important to provide adequate onboarding to explain the upcoming change to your residents. (https://www.royalcollege.ca/rcsite/documents/cbd/resident-developoment-orientation-cbd-e.pptx) Review with them the approach to the curricular change and their roles, responsibilities and expectations. For example, in the context of CBD, it is not sufficient for residents to simply be aware of milestones and EPAs: they are also expected to seek out

educational opportunities on a daily basis. There are also expectations around resident self-reflection, and residents are expected to contribute to their own evaluation. Part of your role as the PD is to help residents understand the expectations and develop the skills they need to meet these expectations; this is an important aspect of resident growth. Setting predefined goals for EPA completion assists your residents in stage promotion.

Lastly, if you are implementing a change that may not apply to all residents at the same time or in the same way, be mindful of how the different groups may feel about their inclusion (or lack of inclusion) in the change. In the case of CBD, many program directors were careful not to neglect residents who were in the traditional stream. Although more senior residents' progression may have been measured against a different (older) set of criteria than that of more junior residents, many PDs made the new curriculum available to their more senior residents for their education. Moreover, the traditional-stream residents were made to feel and see their important role in the change. This was because senior residents ultimately played a formative role as teachers, coaches and evaluators for junior residents and, as such, required instruction so they can partner in the implementation of the curricular change.

Build a framework

To build a framework for major curricular change, like CBD, you will need to create all necessary program documentation, including curriculum maps and new rotation plans, as well as faculty development opportunities. Templates for mapping, planning rotations and other activities are widely available, so make sure to seek out resources that you can leverage — why create something from scratch?

For CBD, for example, the basic tenets of the system are outlined in many documents available on the Royal College website and through your PGME office. Program directors implementing CBD could keep an eye out for tasks that needed to be completed ahead of their CBD launch, as they read through these documents.

Make rotation plans

A curricular change is the perfect time for you and your residency program committee to revisit your current block sequence and reassess the value of all training experiences. It is important to do this well in advance, not only to secure a place for your residents on another service if you are adding an educational experience but also to properly advise the services from which you may be removing residents such that they can adjust. This is a courtesy that could save your PD colleagues trouble around their academic planning. Your university may have specific expectations and guidelines for how to make these changes in an effort to minimize service disruptions. Please ensure you reach out to your PGME office to have discussions about these issues in a timely manner.

Rotation planning and curriculum mapping for Competence by Design: questions to consider

- In which required training experience (rotation) can each entrustable professional activity (EPA) and milestone be obtained?
- Which milestones require formal teaching? How will these milestones be taught?
- Will you need to develop a bootcamp for residents entering the Transition to Discipline (TTD) stage?
- Will you need to tailor rotations to better suit Competence by Design and acquisition of EPAs and milestones?
- Will subspecialty rotations have to be developed for residents to obtain EPAs and milestones?
- Will rotations focused on specific populations (e.g. Indigenous, LGBTQ+) have to be developed to obtain EPAs and milestones? How can you begin to build relationships with providers working in these communities if they don't already exist?
- Will you need to have first-year residents rotate through their home program in the first 2–3 months to facilitate their acquisition of TTD EPAs and milestones?
- Will you be able to maintain your current academic format?
- Will each EPA have an explicit listing of all milestones on your work-based assessments?

Develop a curriculum map

Developing a curriculum map for the curricular change provides your program with the opportunity to conduct a needs assessment and identify any educational gaps as well as redundancies. Conducting this exercise with your residency program committee or curriculum committee members is highly recommended. Mapping each educational experience (e.g., EPA) to the appropriate clinical rotation will enable your program to reflect on the educational and teaching opportunities that exist for each one and to ensure that each skill can be assessed properly.

Be sure to consider the CanMEDS Roles that are taught and assessed in your program and include these in your curriculum map. In the case of CBD, the Royal College's EPA Guides in your specialty document suite outline the clinical parameters, assessment plans, relevant milestones and CanMEDS Roles associated with each EPA. Using a master spreadsheet template will facilitate this exercise, and the spreadsheet will serve as a foundation for future accreditation documentation. Examples of such templates are available in CanAMS, the Royal College accreditation management system, or in the University of Ottawa's CBD manual.[3] Templates are also available through local PGME offices and the Royal College's CBD website. As you go through this exercise, keep in mind the following three questions: *What to teach?, How to teach? and How to assess?*

Create your infrastructure (including a competence committee)

Make sure that the infrastructure is in place to support your planned curricular change. Be sure to identify what infrastructure and processes are required, what exists already, where there may be gaps and how you will fill those gaps. You may find it helpful to develop standardized templates. For example, in CBD, programs need a competence committee. Although the Royal College has outlined the principles and purpose of the competence committee in a sample terms of reference document,[4] the processes and procedures of these meetings are left to the discretion of the program and its CBD implementation team.

Standardized templates are useful for the primary review of resident files by competence committee members before committee meetings and for secondary review, which happens through discussion at the meetings. Likewise, a standardized form is helpful for generating the progress report that is fed to the residency program committee for ratification. The same document can then be shared with the resident. Examples of CC workflow can be found in the University of Ottawa's CBD manual[3] as well as in the Royal College's online resource Mock Competence Committee Cases for Practical Deliberation.[5]

Areas for improvement in the implementation of Competence by Design

- Attitudes and existing cultures in programs
- Change management (anxieties, lack of engagement)
- Collaboration between specialties (interuniversity) and programs (intrauniversity)
- Practical knowledge and implementation strategies (Royal College, postgraduate medical education office)
- Administrative support for programs
- IT support for programs
- ePortfolio functionality (reporting and analytic)
- Dependence on multiple electronic platforms for assessments of Competence by Design (CBD) and non-CBD residents

Embrace the change

Large-scale change is usually undertaken in an iterative manner. Major change does not happen overnight. Your program will face new and sometimes unanticipated challenges as the change progresses, and you may feel as though you are struggling to promote your new curriculum. That's normal. Remember, though, that you are not alone. Even if your change is somewhat unique, many programs have experienced and will experience similar challenges. The people around you, including your colleagues and fellow PDs, are your greatest allies and best resources. By using their tips for success and empowering your team, you will rise to meet the challenges.

Incorporate CanMEDS

Figure 6.2 CanMEDS Roles

As you know, all programs in Canada must incorporate the competencies of the seven CanMEDS Roles (Figure 6.2) into their curriculum. CanMEDS is the Canadian framework that identifies and describes the abilities that physicians require to effectively meet the health needs of society. The overarching goal of CanMEDS is to have physicians integrate the competencies of the seven roles to improve patient care. The updated version, the *CanMEDS 2015 Physician Competency Framework (http://www.royalcollege.ca/rcsite/documents/canmeds/canmeds-full-framework-e.pdf),*[6] has been integrated into the Royal College's accreditation standards, CBD, specialty training documents, final in-training evaluations, examination blueprints and the Maintenance of Certification Program. Some of the key content changes from the earlier version include the introduction of new CanMEDS milestones and the inclusion of competencies in safeguarding and enhancing patient safety, quality improvement and resource stewardship.

Design your CanMEDS curriculum

Many of the CanMEDS Roles are implicitly modelled by faculty during clinical activities. Conducting a formal needs assessment of your program will assist you in identifying CanMEDS teaching that already exists in your curriculum and where your educational gaps lie. Regardless of whether the change you're planning is major or minor, it can be helpful to integrate this needs assessment into the curriculum mapping exercise described above.

Once you have identified your curricular gaps, there are a number of tools and resources that will help you to address these gaps. The Royal College's CanMEDS Interactive website (http://canmeds.royalcollege.ca/) is a good place to start. The CanMEDS competencies can be filtered according to role and CBD stage to allow for a more comprehensive overview and understanding. Additionally, there is a repository of CanMEDS Role-specific teaching and assessment tools. Further helpful resources and publications are suggested in the accompanying list.[7,8] MedEdPORTAL (http://www.mededportal.org)is an online journal of

teaching and learning resources with many interesting examples of implemented curricula. It is important to use different teaching and assessment strategies to accomplish your curricular goals.

Helpful CanMEDS resources

- Royal College's CanMEDS Interactive website (http://canmeds.collegeroyal.ca/)
- Program materials from past editions of the International Conference on Residency Education (https://icre.royalcollege.ca/en/)
- Royal College's CanMEDS publications (ttps://www.royalcollege.ca/rcsite/canmeds/canmeds-faculty-development-resources-e)
- *MedEdPORTAL* (http://www.mededportal.org/)
- Postgraduate medical education symposia at your university
- Other programs at your own centre
- Other programs at other centres

Lessons learned…so far

The implementation of a curricular change, like CBD, in your program and understanding how CanMEDS is integrated represent the foundation and framework for your residency training program. To implement any curricular change, whether it is CBD or something else, all faculty will need to be engaged and committed to do their share of the lifting. Invest time in developing your residents and faculty so that they become comfortable navigating the changes and develop a sense of ownership in the new program. Expect challenges along the way, but don't get discouraged. Learn from those around you and draw upon their experiences.

Best of luck on your journey!

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

09. Curriculum mapping: helping you through the pain

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Objectives

At the end of this chapter you will be able to:

- describe the purposes of a curriculum map
- explain how to create a curriculum map that links competencies and objectives with educational strategies and assessment tools, including entrustable professional activities
- detect and avoid common pitfalls in curriculum mapping
- locate useful resources for and examples of curriculum mapping
- plan regular review and revision of your curriculum map

Introduction

This chapter is meant to help you as a program director in organizing both your thinking around and documentation of the learning experiences and assessment opportunities that your program provides to ensure resident success. Curriculum mapping is a planning and communication tool that can be thought of as a road map to your curriculum. Most of us feel a little reluctant to sit down and tackle this task, and the prospect can even feel overwhelming. However, a small time investment and a little planning here will pay off, as your curriculum map will help guide your learners, clinical teachers and program team to success. Using this tool they will be able to see how your program's learning and assessment opportunities fit together and promote resident progression. Curriculum maps should be living documents that are flexible and can be revised over time as the requirements of your educational context evolve. For example, new initiatives such as Competence by Design (CBD) will require changes to your curriculum map.

How a curriculum map can help your program

The main job of a curriculum map is to serve as a tool to align your program's goals, training experiences and assessments. It links the program expectations at each stage to the learning opportunities and associated assessments. It helps you to plan learning activities along training stages in a logical sequence of progression (i.e., along the Competence by Design [CBD] Competence Continuum). It provides transparency about the

learner's expected educational journey for all stakeholders (learners, teachers, appraisers, administrators, etc.). It can help to highlight what is working well and diagnose program challenges such as unintended redundancies, gaps or sequencing issues in the curriculum (e.g., if a specific activity is at the wrong stage).

How to create a curriculum map

By following these straightforward steps, you can create a map that links your program's competencies with educational strategies and assessment tools including entrustable professional activities (EPAs) and other forms of assessment.

1. Assemble a dynamic team: This should not be a lonely activity. Gather your team (your curriculum committee) by identifying and recruiting individuals who are passionate and committed. These may include members of the residency program committee, clinician educators, resident representatives, program administrators and others.

2. Keep the momentum going: Once you have assembled your team, plan a series of closely spaced meetings. Ensure that your team understands what CBD is, the rationale behind it and the changes that are needed. Consider selecting some key resources from the Royal College CBD resource directory and adapting them to your local context. Your postgraduate medical education office may also have resources available.

3. Revisit your program's mission and/or goals: Whether you are just starting to design your CBD program, are in the thick of the design and implementation work, are responding to updates in your traditional or CBD curriculum or are taking over a program and reviewing the existing curriculum, you can perform this step.

- What competencies do you expect of your current graduates and future colleagues? Think about how your specialty may have evolved since the current curricular objectives were set.
- Review your current program goals to prioritize the most important ones.
- What strengths of your program do you want to ensure are maintained after the curriculum is changed? Think of how you like to "sell" your program to prospective residents during the Canadian Resident Matching Service (CaRMS) process and what you are proud of in your program.

4. Review your existing curriculum: Itemize your program's rotations and teaching and assessment opportunities. If you don't have a map of your current curriculum, create a diagram, map or spreadsheet so you can visualize your curriculum in one place. Although there are many ways to do this, here are a few curriculum examples. (https://www.royalcollege.ca/rcsite/cbd/cbd-guidelines-documents-and-practices-e) CanEra (Canadian Excellence in Residency Accreditation) (https://www.canera.ca/canrac/home-e) provides a template based on CanMEDS key and enabling competencies for accreditation purposes. However, for the purposes of communication and planning with regard to your curriculum, you will probably need a template that directly links learning experiences and

assessment. For example, as you progress through CBD implementation, these elements may change and you will need flexibility to ensure that your curriculum map does not become obsolete.

5. Match and map your new teaching and assessment activities: Seeing how all the different parts of your program fit together is an important step; don't skip this one! For example, if you are making curricular changes as you move toward CBD, match your CBD curriculum's required training experiences (RTEs) and other learning experiences to your EPAs and other assessments, and ask yourself the following questions:

- Are there any gaps (e.g., EPAs without learning experiences, or learning experiences without assessments)? Remember to go back to the CanMEDS framework to identify potential missing elements of intrinsic competencies. For CBD programs, your specialty's pathway to competence document (https://www.royalcollege.ca/rcsite/documents/cbd/epa-observation-request-e) can help with this exercise as it shows the links between EPAs and the CanMEDS framework.
- Are there training experiences that are no longer required? If so, what will be the impact of removing each of these experiences?
- If there are current training experiences that do not map to particular EPAs, do they serve other learning needs? Could they be assessed in other ways?
- Are there competencies/learning needs that you cannot map to existing training experiences? If so, you may need to work with your curriculum committee to create new teaching, learning and assessment opportunities.
- Are there any concerns regarding equity, diversity, and inclusion that may be reflected in the mapping exercise? Does your curriculum specifically provide training and exposure in issues of systemic discrimination/racism within the practice of your specialty?

6. Ensure logical progression and even distribution of your curriculum: Remember that a resident should achieve all EPAs at a stage of training before progressing to the next stage of training. Distribute the EPAs, RTEs and other teaching and assessment opportunities across the stages of the program. Consider these questions:

- Have you ensured there are opportunities for learners to complete less complex EPAs before they complete more complex related EPAs?
- Confirm that the EPAs follow a logical progression of learning and comply with accreditation standards.
- Is it realistic for EPAs and assessments to be done within the curricular time allotted? Keep in mind that residents will often need a few tries at an EPA with targeted feedback before they achieve competence in it.
- Ensure that the EPAs are distributed "evenly" so that some rotations don't end up with many more EPAs than other rotations.
- If an EPA can be mapped to several different rotations, ensure that you indicate which rotation is responsible for the EPA, for example by assigning required versus optional

EPA expectations. This helps safeguard against a scenario in which multiple rotations all select the same EPAS out of a possible set of EPAs and one or more of the EPAs in the set remain unselected by any rotation. Often the same EPAs can be achieved in many rotations — the trick is to have a system in place to ensure that all are assessed without gaps.

7. Refine your map in light of practical realities: You may need to rearrange the EPAs and assessments in relation to the availability and timing constraints of training experiences and rotations. This is a complex step, but focusing some attention here will ensure that it is possible for your residents to achieve the EPA observations they need during their rotation schedule (i.e., there may be no opportunity for residents to manage an emergency-related EPA in their Transition to Discipline stage if they are only scheduled for ambulatory clinics). If the rotations can't be altered, the program may need to delay progress to the next stage until that opportunity becomes available or consider whether a simulation experience would be a reasonable alternative. Another consideration would be contextualizing your map related to equity, diversity, and inclusion (EDI) Should it be specified About First Nations?) and anti-racism/anti-discrimination.

8. Ensure your program complies with accreditation standards: After you complete your new map, check the accreditation standards again to ensure that your program remains compliant. Don't forget that accreditation requires that your curriculum map include mapping to the CanMEDS Roles down to the level of enabling competencies, EPAs, stage of residency training, required training experiences (how learned and taught) and assessment methods. Remember to check CanMEDS to ensure you have incorporated all the key and enabling competencies. Ensure you refer to the CanEra proposed template that is specific to accreditation-related mapping needs. Remember that your specialty's pathway to competence document (https://www.royalcollege.ca/rcsite/documents/cbd/epa-observation-request-e) can help with this exercise as it shows the links between EPAs and the CanMEDS framework.

9. Prepare to implement your newly mapped curriculum: Once you have a good draft of your new curriculum, discuss the new curriculum map with your department or division members and chair or chief. When preparing to launch your new curriculum, consult the more extensive implementation resources on the Royal College website (https://www.royalcollege.ca/rcsite/cbd/cbd-tools-resources-e), but don't forget the following:

- Allow time for faculty development for teachers, to engender culture change.
- Take the time to create a communication plan so that all stakeholders can understand what is expected of them on the basis of your curriculum map.
- Review your curriculum map with your residency program committee and competence committee members.
- Engage your residents in reviewing the curriculum map. Ask them to provide feedback on it, and let them know what the expectations are for them. Take care to include senior residents whose training has been based on the previous curriculum map, as

they will provide a valuable perspective on the new map and can serve as role models for your more junior residents.
- If service changes are required, give the key stakeholders lots of advance notice to ensure they have the time they need to make the necessary changes. Be sure to explain the rationale for the changes.
- Try piloting elements of your new curriculum with your program's existing training or teaching experiences.

10. Evaluate your program regularly: The goal of a curriculum mapping process is to promote open communication and continuous improvement. Accept that curriculum mapping is a transparent, dynamic and iterative process. Regularly evaluating what is working well and what needs improvement engages colleagues and residents. It helps to validate your curriculum and will assist you in adapting your program to improve the logical progression of training to ensure residents become competent.

Don't forget to review your curriculum map regularly, especially when new versions of your EPA documents come out, or if there are other changes to your specialty that affect training. These changes very often will affect your map and you don't want it to be seen as obsolete. Fortunately these reviews will usually be more about refreshing than starting from scratch.

Common pitfalls in curriculum mapping

There are a number of well-known troubles in curriculum mapping. The following suggestions will help you to avoid them

- Watch out for unplanned gaps or redundancies in your new curriculum map.
- Check to ensure your new curriculum map does not have unbalanced expectations of your different training experiences.
- Ensure that training experiences, EPAs and assessments are mapped to the correct stage and rotation.
- Ensure that all EPAs and assessments are owned or required by at least one rotation or training experience.
- Do not forget about other assessment tools.
- If your program does not have a rotation-based structure, consider other organizing units like subspecialized areas, sites or faculty groups.
- Do not equate a rotation's value only to its EPA/assessment link.
- Remember to communicate expectations.
- Do not forget to regularly review and revise your curriculum map.

Conclusion

The common saying “no pain, no gain” holds true for curriculum mapping. As with many things that program directors encounter, an investment of time and effort in curriculum mapping will definitely pay off, as it will make it easier for your faculty and residents to understand and adopt your program’s new expectations. Although there are many ways to create a curriculum map, we hope these principles will get you off to a good start.

Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

10. Simulation in residency education

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Objectives

At the end of this chapter you will be able to:

- describe the role of simulation in postgraduate medical education
- identify key areas within the curriculum where simulation has been shown to be an effective educational tool
- outline a number of practical tips for incorporating simulation into clinical training

Introduction

Simulation is a powerful tool that consistently has large effects on learning and can even have meaningful impacts on patient outcomes.[1,2,3] The use of simulation in medical education has exploded in recent years and is on the radar of most program directors[4] as an important teaching tool in their curriculum. While simulation-based education (SBE) is often talked about as a singular modality, the truth is that it is more like a toolbox. Gaba described simulation as "… a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature…" to optimize the learning experience outside of the clinical world.[5] These techniques may leverage different strategies or technologies such as task trainers, virtual reality, simulated patients, and theater-based simulation with mannequins to name a few. Key to learning from SBE is high quality feedback and/or debriefing in a safe learning environment, defined as an environment where it is safe to take interpersonal risks, and free from embarrassment, rejection, or punishment.[6,7] While simulation may have advantages over other techniques, as a Program Director planning curriculum, you often need to balance faculty energy, resources and time constraints and should seek high return on investment (ROI) for the typically high costs associated with immersive learning.[8,9] This chapter strives to support you in deciding where simulation can be helpful, how to integrate it into your curriculum, understand its use in assessment and how to optimize the ROI. This chapter provides fundamental information and guidance around SBE, but for a deeper-dive into the topic, please consider one of the following texts:

Before thinking about integrating simulation into your program, it is important to understand what is available, such that you can maximize ROI based on your program's needs and specific context. Importantly, what is available in terms of simulation, will differ between programs and schools. Also, many departments and institutions have a growing number of trained simulation-based educators who have focused expertise in this realm. As a Program Director, you should consider working with these individuals, or even delegating the simulation components of your curriculum to a "Simulation Lead" or individual with this role in your program or department. If this is not available to you, it would be worthwhile connecting with other local simulation leaders or national communities of practice relating to simulation such as the Canadian Emergency Medicine Simulation Education Research Collaborative.[10]

Designing and Implementing Simulation-Based Education in your program: Using the ADDIE Model

There are many types of simulation modalities available to you when implementing SBE (Table 1). Further, there are a several factors to consider when choosing both the type of simulation and an effective strategy for integration into your training program. The ADDIE model is a useful instructional design framework to assist with your implementation.[11,12] The cyclical design of ADDIE starts with an Analysis, followed by the Design, then Development, moving on to Implementation of the educational event and an Evaluation that can serve as an analysis to revise the curriculum (or sometimes develop another one). The components of the ADDIE framework are used to frame the below sections describing key considerations for effective SBE implementation. While you as a program director may not be directly developing the simulation, and understanding of a framework like ADDIE is helpful for you as you work with your simulation colleagues to design the overall curriculum.

Table 9.1 Types of simulation*

Simulation Type	Description	Use	Example
Synthetic Simulators and Task-trainers	Simulation using physical devices or structures that allow learners to acquire skills for a given task.	Typically used to develop technical skills prior to performance of procedures on real patients; may facilitate deliberate practice and mastery learning.	Lumbar puncture partial task trainers.[16]

Simulation Type	Description	Use	Example
Simulation on Human Cadavers and Animals	Simulation using live anesthetized or post-mortem animal tissues, and prepared human cadavers.	Traditionally used for procedural or technical training of advanced practitioners in situations where tissues characteristics and anatomical configurations mirroring human conditions are critical.	Airway management training on fresh frozen cadavers.[17]
Simulated and Standardized Patients	Simulation using a human patient as a surrogate; including role-play, real-patients, and simulated patients.	Real and simulated patients are utilized to allow trainees to experience real or mimicked clinical findings and situations in a standardized and controlled environment.	Simulated patient actors used to teach the delivery of bad news.[18]
Human Patient Simulators	Simulation using user controlled electronic manikins designed to reproduce the characteristics of a real patient.	Typically used in immersive critical care scenarios involving all aspects of clinical care.	Interprofessional cardiac arrest team training.[19]
In Situ Simulation	Using human patient simulation in a real clinical environment, at the point of care.	Typically used to either 1) engage multidisciplinary teams with maximized authenticity for training, or 2) test or improve clinical work environments (equipment, space, policies, procedures).	Design thinking-informed simulation as an innovative way to test and evaluate clinical infrastructure.[20]

Simulation Type	Description	Use	Example
Computer-based Simulation	Non-immersive computer generated simulation viewed and interacted through a computer screen and equipment.	Often used to simulate non-critical non-technical standardized clinical experiences for novice practitioners to learn in a safe environment.	Immersive virtual reality-based training for response to operating room fire situations. [21]
Virtual and Augmented Reality	Immersive or semi-immersive multimedia simulated environments in which the user is an active participant via specialized headsets and/or controls.	Used to experience environments or clinical situations that cannot be easily physically recreated or explored, or to bring remote learners together.	Laparoscopic surgery VR simulators.[22]
Serious Games	Games (video, board, other) aimed toward problem-solving and learning rather than entertainment	Often used to teach non-technical competencies harnessing the educational value of play.	Gridlocked ED boardgame to teach about multiple patient environments. [23]

*Adapted from Levine et al 2013, Pilote and Chiniara 2019 [13-15]

Analysis: *Needs and Boundaries*

Your analysis identifies the target learners, figuring out the critical elements to include in the learning activity and what the boundaries of the sessions / curriculum will be. Subject matter experts are needed to help define the important knowledge, skills and attitudes required. The needs assessment for the training can occur through local continuous quality improvement activities, patient safety events, direct observation of actual or simulated patient encounters, surveys (written or individual / group interviews) of residents or other stakeholders (faculty, other healthcare professionals or patients). When simulation is inter-professional, it is critical for you to actively engage educators in those disciplines to help guide the development of the sessions.

Simulation can be a powerful tool when it creates a safe learning environment,[24] and it can have important impacts when focused on difficult to teach topics, including everything from communication to resuscitation skills. Implicit bias mitigation, anti-racism, effective advocacy and speaking up are critical areas for curriculum development and are highly

sensitive areas where simulation may be impactful.[25,26,27] Understanding the needs of your stakeholders and where they align with curricular needs may empower you to effectively align goals to what is important and ask for more resources, if required.

Design: *Educational Goals and Theory*

Moving on to design, it can be helpful to write a goal-statement against which the training initiative will be measured. Ideally it would be specific, measurable, achievable, result-focused and time-bound. The next step should be defining learning objectives that can be cognitive, psychomotor or in the affective domains (recognizing that affective learning objectives are important to education despite being difficult or impossible to measure) and the appropriate simulation modality to achieve the goals (e.g. simulated patients for communication skills training). It should be noted that isolated simulation-based activities tend to fail or be difficult to sustain momentum. Given the 'cost' of simulation (both financial and the opportunity cost of faculty diversion), integrating simulation into existing curricular elements or structure can be helpful to optimize use of limited resources and gain support of senior leadership / administration. Wherever possible, SBE should reflect the range of difficulty and variety of clinical presentations trainees are exposed to in the clinical environment and, allow learners to train with the typical of tools and / or equipment that they are likely to encounter.[6] Due to changes in clinical practice over the years, and advances in clinical care and technology, trainees in many specialties are doing substantially fewer procedures than they once did, so the role of simulation to develop and maintain competency across the range of presentations becomes amplified.

Instructors with subject matter expertise need to then develop or choose the simulation exercise, the debriefing guide and the appropriate assessment tools. The simulation modality chosen for a given purpose should be selected to best achieve *functional task alignment*; aligning the simulator's functional properties with the functional requirements of the task.[28] In doing this, educators can optimize the transfer of learning. Further, SBE should align with principles of *deliberate practice* and *mastery learning.*[29] In deliberate practice, the learner undergoes repetitive performance of skills / cognitive exercises that are supported by rigorous skills assessment. Learners receive actionable feedback which will help further skill development. Key concepts include setting appropriate objectives; at the appropriate level for the learner; allowing for performance that is observed with detailed feedback, that allows correction of errors; utilizing repetitive practice that allows increasingly competent skills performance. Mastery learning, a specific form of outcome-based education, is a rigorous approach to competency-based education. The aim is such that the time to learn a task will be variable (each learning will have their own learning curve), but that the learners will achieve mastery performance, with little or no variation. Mastery learning has been demonstrated to be effective in teaching across a broad range of resuscitation skills,[30,31] and using this approach has been shown to improve patient outcomes in central line insertion,[31] thoracentesis,[32] paracentesis[33] and lumbar puncture[14] and appears to be a cost-effective method of instruction.[34]

Development and Implementation: *Planning and Debriefing*

Prior to implementation with the intended learner audience, a pilot or dry-run is particularly useful to identify issues with the scenario / educational activity that can be remedied before running with learners. This can be done with a different subgroup of learners (if feasible) or faculty and should focus on determining the quality of pre-brief, creation of a safe environment, the timing and quality of the scenario and the debriefing guides. For team training or Simulated Patient (SP) scenarios, you can anticipate some of the expected actions of learners which can be programmed into the manikin operating system software ahead of time or discuss with the SPs.

Simulation is a form of experiential-based learning, yet the most impactful moments of learning tend to be in the debriefing rather than the scenario itself.[35] Trained facilitators are critical to this process, and there is no singular 'best' technique – just some common principles. Debriefing needs to align with the case objectives but should allow the flexibility to incorporate learner driven learning goals that arise from within the simulation activity. Debriefers are advised to serve as the 'guide on the side' rather than the 'sage on the stage' and truly facilitate conversation to improve future performance. In order for that to happen, the debriefer needs to create a safe space (through activities such as a 'learning contract' and adequate time for pre-briefing the scenario and goals of the session). Specific techniques for debriefing such as plus-delta, advocacy-inquiry, directive feedback and rapid cycle deliberate practice are beyond the scope of this chapter but are important tools in the toolbox of debriefers.[36] Ultimately, the goal of debriefing can be considered in the larger picture of healthcare, where debriefing for clinical patient events can be utilized as part of continuous quality improvement in a learning organization and help improve patient outcomes. Program Directors more interested in debriefing might wish to read up more on the PEARLS model for a usable framework.[37]

Evaluation: *Return on Investment*

Although the evaluation is placed at the end of the cycle, it really is an iterative process that should encourage reflective thought at each stage in the cycle. When considering the overall evaluation of the simulation activities, you can use the familiar Kirkpatrick model[38,39] to facilitate subsequent adaptation. When implemented in this manner the evaluation can serve as a needs assessment for the next educational activities.

SBE is typically an expensive endeavor, so all efforts should be made to optimize the cost/benefit ratio. One of the real challenges in navigating your resourcing conversations is that the cost of simulation is often easy to see, where the benefits while intuitive, may be more difficult to articulate. Through the ROI lens, you can ask "what are we hoping to achieve and how will we know if we did" in conjunction with efforts to contain costs. There are multiple costs to consider when planning simulation. Fixed costs, such as operating costs of a simulation center and variable costs including teaching stipends/personnel, and equipment/technology need to be considered. Understanding the "why" of your program

allows you to focus your dollars to where it will be most impactful. Often there are less expensive but equally educationally sound approaches to meet your curricular need.[40] Ask your simulation experts to help you minimize costs where you can.

It is important to understand who you are presenting your ROI to. What do they care about? There are several frameworks which organize outcomes of educational efforts. In general, the models move from documenting improved knowledge/skills in a simulated setting to the more valuable, changes in practice and to patient or system outcomes. For example, El Khamali et al (2018), demonstrated that an immersive simulation-based program for ICU nurses was associated with decreased job-related strain, absenteeism, and transfers Hospitals/ICUs may see that the costs associated with job related strain far outweigh the costs of a similar program. While patient outcomes were not measured, this study may have dramatic impact on future funding decisions.

Simulation for Assessment

Current trends in postgraduate training, such as competency-based medical education (CBME), place an increased onus on training programs to ensure that graduating trainees meet key competencies before entering independent practice.[41] Most programs look to the use of direct observation in the workplace to assure that these competencies are met, however the clinical workplace is not predictable and patient-care is prioritized over trainee assessment.[42] To address these limitations, simulation-based assessment has been proposed as a potential supplement in programs of assessment,[43] with the capacity to control exposure to scheduled reproducible experiences and allow trainees to demonstrate their abilities without any risk to patient safety.[44] While in principle the simulated environment seems ideal for assessment, there are several tensions that have been noted. For example, simulation was initially developed as a “safe space” for practice[24] and the introduction of assessment may threaten the integrity of this learning environment, with trainees fearing negative assessment. Another concern is the variable access to simulation equipment and how this may disadvantage trainees and programs with resource limitations.

Despite these tensions, many of you have been tasked with the rapid integration of simulation into your programs of assessment without a clear understanding of how best to use it effectively. In a review of the literature pertaining to simulation for assessment, Hall et al.[45] articulate a set of principles on the use of simulation for assessment. Table 2 outlines the 6 key recommendations from this work. We encourage you to reflect on these recommendations when considering the implementation of simulation-based assessment. Here a few examples of how simulation-based assessment may be implemented:

- **Rare clinical situations**: If your trainees require assessment performing in a rare situation, you may want to consider arranging for this to occur in a controlled and predictable way using simulation, to supplement opportunistic exposure in the workplace.

- **Communication and leadership:** The simulation environment is particularly useful for allowing trainees to lead teams and communicate without intervention from attending physicians.
- **Procedural competence before real-world performance**: Demonstrating competence in a procedure or surgical skill prior to real-world performance minimizes potential harm to patients.

Table 9.2 Recommendations for the use of simulation-based assessment (SBA)*

Recommendations for the use of simulation-based assessment (SBA)
1. Validity evidence for assessment tools and processes in SBA should be aligned with the learner level and stakes of assessment.
2. SBA processes, such as rater training, case content, and assessment tools, should be standardized in order to support the reproducibility of assessment.
3. SBA is resource-intensive, so educators should utilize it only when other assessments will be less effective and match the level of fidelity to the objectives of assessment to minimize cost.
4. When performing simulation-based. assessment, educators should consider its educational effects and provide feedback to participants.
5. When designing SBAs, educators should engage in regular program evaluation and stakeholder consultation to ensure acceptability.
6. Educators should thoughtfully and purposefully incorporate SBA as part of a robust program of assessment.

*Adapted from (Hall et al. 2020) [45]

Simulation: A bright future in medical education

The potential uses of simulation in postgraduate medical education are increasing year over year, amplifying the impact of simulation on learners, teachers, and patients. Certainly, traditional manikin and task-trainer-based simulation is now utilized in many postgraduate specialty training programs in Canada and abroad, but its implementation as a venue for assessment and certification is still in its nascence. With the introduction of in-situ simulation, there is increased opportunity for interprofessional and interdisciplinary learning,[46,47] and simulation for continued professional development.[48,49] Further, in-situ simulation affords the opportunity to use simulation as an investigative methodology to identify latent safety threats in clinical environments[50] and inform staffing workload and responsibilities in new settings and situations.[51]

In addition to increased uses of simulation, there have also been exciting technological advances that are offering new mechanisms for using simulation. The rapid improvement in 3D printing technology has made the creation and integration of partial task trainers much cheaper and easier, and has improved moulage and environment fidelity in some cases.[52] In addition, wearable technologies to measure trainee parameters, such as galvanic skin response and eye tracking devices are altering how we adjust simulation in real time and engage in effective debriefing.[53]

Finally, the world of virtual and augmented reality is seen by many as the cutting edge of SBE.[54] Through the construction of artificial worlds or the projection of virtual information to enhance real environments, trainees will have the opportunity to interact with tissues, patients, and other healthcare providers, in unique and controllable ways. From laparoscopic surgery virtual reality simulators[20] to whole scale virtual hospitals and learning environments[11] virtual and augmented reality will undoubtedly shape the landscape of learning in the years to come.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

11. Selecting the best residents for your program: keys to success

Author: Glen Bandiera, MD, FRCPC

Objectives

At the end of this chapter you will be able to:

- describe best practices for designing a resident selection process
- outline the steps in designing a selection process
- list common pitfalls related to resident selection and actions to avoid each of them
- outline the key elements of orientation for newly selected residents (including Competence by Design)

Case scenario

Author: Javeed Sukhera, MD, PhD, FRCPC (http://pdhandbook.royalcollege.ca/editors/)

Your program is conducting virtual interviews. During a committee discussion, there are comments on one specific candidate referring to how they had “poor lighting” in their space and did not appear “professional.” A heated debate ensues among the committee. One member notes that physical appearance is an important element of professionalism, while another member argues that the comments on this candidate’s “poor light” are inappropriate. Another member of the committee turns to you and says, “you’re the Program Director, what do we do?”

You are aware that bias is pervasive in selection processes and remember that we must acknowledge and openly discuss biases that may influence decisions. You may want to use this discussion as an opportunity to discuss the importance of bias mitigation and highlight how the process is designed to promote structure and objectivity. You may also highlight how important it is to question our assumptions and challenge one another.

In this circumstance, you can role model for others that dissent and debate is healthy and welcomed. Creating an open culture for discussion can help mitigate bias. Although you may have your own perspectives on why comments on “lighting” for a virtual interview are problematic (e.g. biases that may favor candidates with certain physical appearances, bandwidth, cameras, privacy, etc.,), in such a circumstance you can ask your committee members to challenge their own biases and consider why associating

"professionalism" with physical appearance can be highly problematic. Ultimately, you should also invite feedback into how to address such biases as part of future interview processes.

Introduction

With so many highly skilled and prepared candidates to choose from, you and your committee are likely to match very good candidates regardless of the process you use. But are you choosing the *right* candidates for your *specific* program? Are you treating the entire cohort of applicants fairly and equitably? Are you taking all reasonable steps to avoid inappropriate bias or inadvertent secondary consequences of your processes? In all sectors, who is chosen to join businesses, units or teams can determine the culture, processes, successes and outcomes for years to come, and residency programs are no different. Accordingly, resident selection is one of the most critical functions that program directors and committees must take on. For many, it is also one of the most rewarding and fun. Knowing that this is a high-stakes decision means that you probably spend a great deal of time thinking about and reflecting on your selection processes. It also means that you may be vulnerable to misinterpreting certain risks in an effort to "get it right" or be prone to unintended bias.

Proper selection requires a major investment of time, so it makes sense to focus on making high quality decisions. As program director, you should plan to dedicate a significant amount of time and energy (yours and that of others) to the selection process, including:

- review and updating of program descriptions, tools and questions (6–8 hours);
- committee review and discussion of proposed selection model (1–2 hours);
- file review (1 hour per reviewer per file);
- training/orientation of participants including anti-bias training, (2 hours per individual);
- selection of candidates for interview (1–2 hours of deliberations and quality checks);
- interviews (3 × 30-minute interviews × 2 interviewers per interview = 3 hours per interviewee) and
- final ranking decisions and review and associated quality checks (2–4 hours).

Although the hourly estimates may vary greatly individual to individual, the list above does not include the time administrative personnel will need to devote to organizing it all.

With all of this in mind, this chapter is intended to help you design a comprehensive selection process and avoid some common pitfalls that arise when assessing and ranking candidates. Remember, however, that as a new program director you probably will not have to start from scratch. Your program probably already has a resident selection process in place; if you are lucky, it is a good process and you may not need to do much, if any,

redesigning. As a first step, then, you should definitely consult with your selection committee to find out as much as you can about the existing process. Focus on asking about what is working well and where they think you can most help.

There are five generally agreed-upon principles that should guide a sound selection process[2], derived from extensive experience and articulated in the literature in human resources, education and other fields.

First, you must *clearly determine the attributes that matter* and articulate these to all who participate in your process. Ideally, these would be explored by your selection committee and revisited annually.

Second, you should *rely on a breadth and diversity of opinion and perspectives in making selection decisions*. A well-constituted committee with equal weight given to each "voice" will produce a diversity of perspectives, evening out the "noise" generated by interrater variation and enabling a broader and independent assessment of a multitude of applicant characteristics.

Third, *decisions should be based, to the degree possible, on a comprehensive understanding of the candidate's past performance and demonstrated personality characteristics, values, and competencies*. Although you will likely be rooting for some candidates and at times believe with good intentions that they may improve over time, it is important to be diligent in your screening and selection processes while approaching selection with humility and respect for the lived experience of candidates.

Fourth, you need to understand and clearly *describe what constitutes legitimate grounds for decision-making*. You must determine not only what matters but also what does not. This can be difficult to do because many committee members, letter-writers and candidates will focus on things that matter to **them** but not necessarily to the program or the committee. There are some attributes that are explicitly forbidden to be considered in selection decisions such as racial identity, gender, and family situation. Most of these factors are well-known and enshrined in legislation, but some are more subtle. It is important for program directors to understand the appropriate legislation, regulation, and policy pertaining to human rights, discrimination, and harassment. If candidates are asked about their family situation, debt load, country of origin, etc., it can have a negative impact on your program but also on the mental well-being of candidates. Therefore, it is also important for those involved in selection processes to be aware of their biases and avoid making inferences about a candidate's suitability or interest on the basis of inappropriate details such as how many electives an candidate completed in an area or how much volunteer work they did.

Finally, you should *strive for standardization at all points along the way*. All candidate files should be scored against fixed objective criteria, interviews should be based on a fixed list of key questions (with interviewers being given the ability to explore areas the candidate brings up during the interview) and ranking decisions should be based on a predetermined

process that relies heavily on previous assessments of the candidates and a careful consideration of the program's needs, the overall profile of the candidate cohort (e.g., male/female balance) and any concerning or mitigating information that arises during the course of the selection process. It is also important to remember to consider how biases may become embedded in your objective criteria and processes. These can often be mitigated by ensuring that diverse perspectives and experiences are incorporated into establishing and evaluating selection processes. Throughout selection, there will be circumstances that cannot be handled within the confines of your defined selection process: your program should have a plan for how to consider such cases and when to seek advice from central authorities. Adhering to these five general principles will help you to design a step-wise approach to a defensible, systematic and reliable selection process.

Getting started

Any selection process must be built upon a solid foundation. As an accreditation standard, all institutions that sponsor residency programs must have a mission statement or equivalent outlining the place for medical education within the institution. Most departments or equivalent units within faculties will also have a mission, vision and/or values statement or a strategic plan, as will some divisions. These are all good places to start as you reflect on your selection process. Ultimately, your residency program will need to decide what it is trying to accomplish through the operation of the program. Are you seeking to attract and prepare residents to serve a specific population? Do you have a focus on leadership or research? Does your site/university/faculty have a specific resource that is unique in your area that you feel an obligation to exploit for societal good? All of these should inform your decisions about what type of graduates you want to see and, by extension, what type of residents you seek. Selection processes should align with a program's resources, values and intent. Many committees either do not discuss this issue at all or tolerate varying opinions among committee members about what they are looking for, which creates a problematic source of interrater variability that can adversely affect the prospects of otherwise excellent candidates. Reflection and introspection about your program should culminate in a concise statement about the goals of your program, articulated in a leading statement in CaRMS (Canadian Resident Matching Service) (and any other) public resources.

Once you have decided on the overall goals of your program, you need to determine what type of candidate you feel will have the best chance of success. Identify the key factors that are important and what supporting evidence a candidate can bring forward. These factors are likely to be program and specialty specific while inclusive of broad variables that may be universally sought such as high academic performance, interpersonal skills, etc.

Next, decide how you will weight or score each portion of the candidate's application. There are three common ways to do this, each with pros and cons. The first way is to assign a weight or score to each component of the application (reference letters, transcript, etc.) and then assess, for each candidate, the strength of each component in relation to your factors of interest. The strength of this approach is that it enables you to weight each

component of the application separately, on the basis of your views of the credibility and impact of each component, while also giving the assessors the freedom to use their expert judgment based on the criteria you have established. The downside is that a candidate may decide to concentrate their "evidence" in a different section of their application than you had expected (e.g., they may describe their volunteer experience in their letter rather than in their CV) and thus the score they receive for a particular component may not accurately reflect their merits. The second way is to assign weights to each factor of interest and then score each on the basis of the contents of the entire application. This approach allows assessors to seek evidence related to the factor of interest regardless of where it is found in the application file. The downside of this approach is that it makes it harder to standardize the impact of each application component (e.g., some assessors may find the reference letters more compelling while others may find the personal letter more influential). The third way is to take a more global approach and ask each assessor for a single overall score on the application, considering both the entirety of the application and the entire list of factors. This approach does allow for assessors to make one holistic assessment using their expert judgment; there is some validity in this, *if the assessor is trained and highly experienced*. What is lost in this approach, however, is the ability to oblige assessors to make a deliberate decision on each factor of interest, as well as the data that would otherwise be available to inform final ranking decisions to break a tie or create desired balance in the ranked cohort (e.g., a balance between research-focused residents and community-based residents). The recommended approach is the second option above- to *seek objective assessments of each factor, rather than each component*. but each of the three approaches is justifiable. Your committee must make a deliberate and considered decision about which makes most sense for your program and communicate this widely.

5 tips for selecting residents

1. Decide what your residency program is trying to accomplish through operation of the program.
2. Decide what type of candidate you feel will have the best chance of success in your program.
3. Decide what 'evidence' you will look for.
4. Decide how you will weight or score parts of the application package.
5. Decide on a priori decision-making and dispute resolution processes.

Assessing the applications and interviews

Candidates would ideally be assessed by a panel of assessors across the application review and interview phases. If you use a system where the interview is assessed independently from the application but scores from both the application and interview are used to generate the final ranking of candidates, it is important that the assessors doing the interviews not be the same people who scored the applications. Furthermore, the interviewers should not be party to information in the application. Only by creating this separation can the scoring of the applications and interviews be truly independent. If you

“wipe the slate clean” after the application review and the final ranking of candidates is based only on the interviews, it may be appropriate to provide the interviewers with information about the candidate ahead of time (full application, only the CV, etc.). In this way a holistic view of the candidate still informs the final ranking. Both the application review and the interviews should involve multiple assessors. There are many valid ways this can done. It is less important to quibble over whether there should be two interviews with three assessors each versus three interviews with two assessors each than it is to ensure that multiple individuals are involved (in this example, both circumstances involve six assessors). If you have a small number of applicants, you may be able to use one assessment team for all applicants, which will generate the most reliable scores across applicants. If you have a large number of applicants, however, multiple teams will be necessary.

The literature suggests that at least three independent assessments of each of the application and interview are required to produce a stable score, as long as the instruments and criteria are standardized, and the assessors are properly trained. For interviews, it is considered best practice to use standardized questions and scenarios for all applicants. Although not the only solutions to many of these challenges, use of a Multiple Mini Interview model or a skills demonstration model using an objective structured clinical examination (OSCE) would enable you to adhere to the key principles outlined in this paragraph.

Throughout the assessment and interview process, it is important to consider how biases may adversely influence selection processes. Although a comprehensive review of this literature is outside the scope of this chapter, best practices include but are not limited to: encouraging reflection and discussion about biases, standardization, blinding interviewers to application data, and including diverse voices and perspectives as part of interviewing and assessment.

Ranking

To create the final ranking of candidates, it is best to rely on the system that you have spent so much time designing and trust your independent assessors. Candidates’ average score across all independent assessments of their application and interview is going to be the best indicator of their relative ranking. You may need to tweak your final ranking process for a couple of reasons. The first is that you may need to assign a “do not rank” status to certain candidates. No matter how well a candidate may meet all of your predetermined criteria, they may say, do or convey something that causes significant pause to you and your committee. These critical elements, which may involve interactions during social times or comments that a candidate makes while interacting with your team outside of the interview, may not be captured in your scoring rubric. You need a systematic way to allow concerns outside of the scoring rubric to be raised. The best advice is to consider these elements as grounds for a “Do not rank” decision rather than adjusting the candidate’s ranking downward because you want your team to focus on extreme and highly meaningful observations rather than getting bogged down in arguing over nuances and/or

subtle behaviour quirks. The 'litmus test' question should be, "Would we rather risk getting an unmatched position than risk matching this candidate to our program?" If the answer is Yes, then assign a "do not rank" status. The decision to exclude a candidate from your list should not be taken lightly and should have clear and transparent justification that is discussed and agreed upon by a diverse group involved in selection rather than one person.

Another important consideration is to consider your program's strategic aims and diversity. For example, if you are committed to rectifying a gender imbalance and the top 10 candidates for your three positions are all of the same gender (you might want to look at your process if this happens), you may want to adjust some of the top candidates with other candidates who might have scores that would otherwise exclude them from the list. Similar arguments can be made for including some candidates with a strong focus in an area of priority for your program (underserviced population focus, quality assurance interest, etc.). One way to limit the temptation to debate every candidate's merits is to ask committee members to validate the "diversity" of the rank list and to have a predetermined approach to use if they cannot. Establish limits to how far any one candidate can move up or down a list and mandate that candidates within a target group cannot be reranked relative to each other. For example, if your committee advises inserting two more men into your top 10 to achieve gender balance, then insert the two most highly ranked men rather than argue about which two it will be.

Once you decide on your rank list, go celebrate, have a good night's sleep and trust the process. Deflect any further questions or advocacy with reassurance that your system has been adhered to.

5 Pitfalls to Avoid

1. Beware of the 'false meritocracy' when adding up candidates' accomplishments.
2. Be careful to fully separate assessments to avoid double-counting.
3. Ensure all involved are aware of appropriate legislation and rules.
4. Be careful in assessing 'fit', strive to be objective and avoid intrinsic biases.
5. Avoid assuming candidates are interested or appropriate based only on number of electives done.

Challenges

Finally, some important pitfalls await even the most well-intentioned and organized program. Five of these are touched on here.

The first pitfall is that of the false meritocracy: those who have achieved success and have accomplished some key "achievements" may have done so not because they have abilities that others do not have but because they have had privileges unrelated to their abilities that have given them a leg up. A smart, insightful, hardworking and highly competent

applicant may not have achieved the highest score on a standardized examination or amassed a significant number of hours of community service not because of a lack of ability but because they had to work two jobs to put themselves through undergraduate education and/or support a family rather than take two or three prep courses and spend a summer doing volunteer work. This applicant, in overcoming these competing demands, may be very well-suited to your program but overlooked if only key achievements are counted. Program Directors serve in an important role of leadership and influence. They must be able to help others recognize that a candidate that has not done electives with notable physician leaders may have come from a background that lacked connections in medicine or mentorship from family friends. This inadvertent bias in selection is hard to identify, which is why it is important not to set up an assessment system that relies simply on counting achievements. You should strive hard to seek to understand your applicants by examining their rationale for the decisions they have made and their ability to self-assess and self-direct on the basis of their experiences.

The second pitfall is the inadvertent false separation of assessments. As a stark example, if you set up a system whereby you weigh the application and interview scores at 50% each and then provide the interviewers with access to the application, you are almost guaranteeing that the application will count for more than 50% of the final rank because assessors cannot ignore what they read in the application and it will influence their assessment of the interview. If you truly believe that the interview assesses different things than the application review (if you don't, then why do the interview?) then you should let the interview be assessed on its own merits.

The third pitfall is failure to respect external constraints, such as local human rights legislation or institutional policies. Make sure that all involved in the process are aware of these constraints. Avoid all questions and comments that impinge upon prohibited grounds for decision-making. If it is against the law to discriminate on the basis of a certain factor then do not even bring it up in discussion.

The fourth pitfall is the consideration of the "fit" of future residents with the program. Although it is important to consider the uniqueness of your program and calibrating processes and criteria to reflect these factors, "fit" can also be used intentionally or unintentionally to exclude certain candidates or have an adverse impact on equity, diversity, and inclusion. You must be cautious that your "fit" criterion is not used by committee members to focus on minor nuances to select individuals who are very similar to themselves or to those already in the program (including both their good and bad attributes). This is a concept known as affinity bias. There are ways to consider "fit" without seeking uniformity, however. Committee members should be trained to recognize hidden biases and share a collective commitment to professionalism, equity, diversity, and inclusion. When considering "fit", assessors must think carefully about how they will assess candidates in this regard, challenging their own biases. Furthermore, if the issue of poor 'fit' comes up for a candidate, the discussant must be pressed to articulate which of the established criteria or values are relevant in their assessment; it cannot be used as a criteria itself.

The fifth pitfall is the assessment of elective experiences. Just because an applicant did a ton of electives in your field does not mean they are going to be a good resident. Remember that candidates will have several years in your excellent program to become specialists. You want residents who have taken charge of their learning, who have used opportunities to broaden their mind and ensure they are making the right career decision, and who know how to become well-rounded through experiences; it takes very little imagination to choose electives that are all in one field. Furthermore, doing a concentration of electives in one area does not guarantee that the candidate is a high performer, nor does it guarantee that they are still committed to a discipline after several experiences. Be on the lookout for those late bloomers who got turned on to your field only after experiencing it for the first time later in medical school as demonstrated through their more senior elective choices and personal statements.

Conclusion

Selecting residents is one of the most important, fulfilling and enjoyable tasks a program director will undertake with their committee. Employing a thoughtful approach that incorporates key design elements will increase everyone's confidence in the process and result in a better outcome for your program and, ultimately, for society.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

12. Resident mentorship

Author: Michelle Elizov, MD, MHPE, FRCPC

Objectives

At the end of this chapter you will be able to:

- describe the importance of mentorship in the development of residents as well-rounded professionals
- outline the types of support that can be provided through mentorship and the pros and cons of various models by which mentorship can be provided
- describe the positive tone that mentorship can foster within a training program

Case scenario

Dr. Singh is meeting with a first-year resident in her program a few months into the resident's training, as part of her routine "sit-downs" with trainees. She does not know the resident well but has had informal discussions with colleagues who have mentioned that the resident seems reserved but is professional. There are no significant concerns with his academic performance so far other than an overall lack of efficiency or time management skills. In the meeting, the resident indicates that he feels things are going well academically and that he is enjoying his rotations. On the other hand he says he feels a bit "lost" in this institution, not having trained here previously, and he feels that he is behind his peers in terms of progress as a result. The resident mentions that he hopes to eventually get a position in a university institution and would like to explore some research options locally but doesn't know where to go.

Introduction

In Greek mythology, Mentor was the person to whom Odysseus entrusted his son Telemachus as he went off to fight in the Trojan War. His hope was that Mentor would guide and support Telemachus in his development and in facing the various challenges that came his way, as Odysseus could not be there to fulfill this role. The modern use of the term "mentor" became established through the business literature in the 1980s, and the concept and its application have been progressively imported into the academic world. Mentorship is now recognized as an invaluable adjunct in the development of health professionals, both while they are learners and as they progress to become faculty members. Your position as a program director (PD) places you in an important mentorship

role with the residents in your program. To make the most of mentorship, it is important that you understand the benefits of mentorship for your residents and your program, the types of mentorship that exist and the various models by which mentorship can be provided.

Mentorship is not a “one-size-fits-all” concept. A mentorship relationship should ideally be based on a genuine interpersonal connection between mentor and mentee. Mentorship can be viewed as a journey of personal and professional development on which the mentor and mentee embark together; the relationship will evolve over time, depending on the needs of the resident as dictated by their current career or life stage. This chapter will describe the various types of support that can be provided through mentorship, the benefits of mentorship and the pros and cons of some of the models of mentorship. It will conclude with some tips on how you can make the most of mentorship in your program.

Review of the landscape

If you are a new PD, it will be important to learn about the mentorship opportunities that are currently in place in your program. For example, some programs have formal mentorship programs where residents are matched with a particular faculty member to have discussions about careers, some have research mentors and some have peer mentors. It is particularly important to find out what will be expected of you as the PD in terms of your role as a mentor.

Types of support

Mentorship has been recognized as being invaluable in the development of physicians. Even for established physicians, mentorship is increasingly being recognized as helping to enhance productivity, decrease burnout and create a sense of belonging and engagement that fosters vitality. Mentorship can take the form of *instrumental, psychosocial* or *sponsorship* support.

Instrumental support focuses on helping the mentee gain the skills and knowledge that are essential for successful work performance. In residency training, day-to-day teaching around clinical knowledge and skills is an obvious form of instrumental support, but a mentor who has a longitudinal relationship with their mentee can also help the mentee to develop their competency in the intrinsic CanMEDS Roles that are so essential to our professional practice. Having a trusted sounding board with whom to discuss issues related to the development of communication or collaboration skills can sometimes be more important for our trainees and the patients for whom they care than having a mentor who will simply focus on helping them to gain more medical expert knowledge. Mentorship around the development of the Scholar Role is also invaluable. It is standard practice for trainees who are interested in research to have a mentor who will help them to get their research career off the ground, but it is valuable for mentors to help all residents to enhance or develop a scholarly approach to their daily work. Finally, as highlighted in the case scenario, instrumental support also involves mentorship around the procedural

knowledge that makes training and practice so much easier, which comes with experience: who to talk with to get things done, the quirks of the institutional culture or practices, the educational or clinical resources felt to be most useful, and so on. It is not always PDs who must provide this information, but it is essential that they know where to direct their residents to gain it; sometimes it is most useful to pair junior trainees with a near-peer resident.

Psychosocial support is personal support, encouragement and advice that may focus on relationships or work–life balance. This is often the type of support that comes to mind when people think of mentorship. Of the three types of mentorship support, psychosocial support is often the one that requires the most trust and openness between mentor and mentee, and it is richest when there is a genuine interpersonal "click" or fit. As a result, it is often the type of support that is hardest to achieve when formal mentorship programs pair people in an almost random fashion (see the discussion below about formal versus informal mentorship models). Residents may share personal and professional uncertainties, stresses and challenges, and they need to feel that they are doing so in a safe and nonjudgmental environment, with someone they trust truly has their best interests at heart (mentee-centred approach). In many circumstances, the PD may provide this type of support. Recognizing the very personal nature of psychosocial support is important, and understanding how this plays into situations where mentors might be in a supervisory or evaluative role is essential, especially for PDs. It is also important to recognize that sometimes the residents who most need this kind of support are the very ones whose personalities are such that they would not seek out a mentor themselves. As PD your role may be to provide that mentorship or help them to find a mentor who would be a good fit, which would require some exploratory conversations with the resident. You may wish to explore if the resident would like to receive support from a mentor with shared lived experience. In the case scenario at the start of this chapter, the PD has clearly created an atmosphere in which the resident feels comfortable voicing his concerns.

The third type of support, ***sponsorship***, involves active advocacy that champions the resident for opportunities within the institution and the profession and provides access to the mentor's network of professional contacts. Mentors who provide sponsorship help residents to become full "members" of the profession by introducing them to people with whom they can collaborate or from whom they can actively learn a new skill. Sponsorship also helps residents to explore an area of medicine they might not have considered or understand a practice profile they might enjoy. This type of support helps residents to select the type of practice they think will be most satisfying, get the position they hope to have and advance their academic interests meaningfully. Sponsorship can be achieved through things like providing individual introductions, suggesting that the resident be invited to become a member of a particular committee, or advocating on their behalf with letters of support or verbal discussions. For example, in the case scenario, the PD could connect the resident with a colleague who is doing research in an area of interest to the resident. In programs that have a faculty member dedicated to overseeing the scholarly activities of the residents in the program, the PD's primary role in terms of sponsorship would be to ensure that the resident is set up with a meeting with this person.

Benefits

As you can imagine from the various types of support mentorship can offer, residents can benefit in various ways. The literature shows that mentees benefit in the following ways:

- individual recognition, encouragement and support;
- increased self-esteem and confidence in dealing with others;
- confidence to challenge themselves to achieve new goals and explore alternatives;
- realistic perspective on the workplace and learning setting;
- advice on how to balance work and other responsibilities;
- support in setting priorities;
- knowledge of workplace do's and don'ts;
- networking;
- increased productivity;
- increased satisfaction (personal and professional);
- decreased burnout;
- guided self-reflection; and
- "experiential learning once-removed" (the ability to learn from others' experience, particularly for high-stakes issues where a "mistake" could be costly in terms of time, career development or personal satisfaction).

What is less commonly recognized is that mentorship relationships also benefit the mentor and the institution. Benefits to mentors often include the following:

- satisfaction in helping a junior colleague reach their academic and professional goals,
- enhanced professional recognition,
- increased self-confidence and self-esteem,
- enhanced career satisfaction,
- rejuvenation of creative energy, and
- value in the annual performance review and promotion.

Institutions that support mentoring relationships can also benefit because mentorship:

- helps with recruitment and retention;
- strengthens individuals, which strengthens the department and institution as whole;
- provides a way to pass on common values and approaches; and
- creates a sense of community and bridges gaps.

Mentoring models

There are various models of mentoring relationships that you as a PD can consider when looking to foster mentorship for your residents. Knowing the strengths and weakness of each model can be helpful when you are implementing mentorship opportunities in your program.

- *Hierarchical versus peer*: Most people picture mentors in a residency training program as more senior, experienced physicians who will guide and support residents using the wisdom they have accrued through experience. This is the most traditional view of mentorship. However, although the benefit of experience in some circumstances cannot be overstated, and more senior often means more "power" to help, it should be recognized that hierarchical relationships often have an inherent power differential that may impede truly honest discussions and disclosures. This is particularly the case if the mentor will be in an evaluative position with respect to the resident mentee during their training. As a result, in certain circumstances, a peer or near-peer model of mentorship may be more appropriate; the assumption is that even residents who are at a similar stage of training have had different experiences and have learned different things and can therefore still help their peers or near-peers with some issues. They are also more able to understand the mentee's current realities because they are living them or have just lived them and can therefore share practical tips and tools and commiserate.
- *Dyad versus group*: Although a pair of people is the most typical format of mentoring relationships, group mentoring can be useful when there are insufficient numbers of people to act as mentors. In this case a single mentor can act as group facilitator, encouraging peer-to-peer support, as well as mentor in the more traditional sense. This model can also attenuate the effect of the power differential as there is a certain safety in numbers. Theoretically these groups can be entirely peer led so that resident peers each have an opportunity to facilitate the group and learn different skills in doing so.
- *Formal versus informal mentoring*: One of the key ingredients to a successful mentoring relationship is the fit and trust between mentor and mentee. In more informal mentorship, often a resident's admiration and respect for a faculty member's competence and capacity to provide support and guidance will lead them to seek this person out as their mentor. A potential mentor may in turn recognize that a resident has potential, is coachable and is enjoyable to work with. This type of relationship develops informally and requires an element of serendipity and recognition of opportunities for mentorship. However, it often starts with positive expectations and intrinsically has that "fit" that is so key to success. Unfortunately, many times the very residents who need mentors the most may not have the personality to seek them out, or there is an expectation that the program provides mentorship, and for these reasons, many programs have developed formal mentorship programs. In formal mentorship programs, there are often growing pains before residents and mentors find commonality and develop an easy relationship, because they are assigned to each other rather than finding each other through an organic process. If personality fit is lacking, it can be a deal-breaker. Some programs have addressed this issue by assigning a mentor to each trainee in their first year of residency but allowing (and often expecting) mentors and mentees to form new pairings in subsequent years with no hard feelings, as relationships between various faculty members and residents build and as residents' career aspirations crystalize.

The concept of multiple mentoring is also important. It is rare that a single mentor can provide mentorship on all aspects of a mentee's personal and professional development at all phases of their life and career. As a result, residents often develop several mentoring relationships (sequentially, overlapping or simultaneously) to address different needs. This is appropriate and in fact should be encouraged. As a PD, you will very likely be one of these important mentors.

Tips

- Ensure that all residents have at least one trusted mentor. The challenge, as mentioned above, is that often the residents who most need mentorship are the ones who are least likely to seek it out spontaneously, and thus a more formal approach may be beneficial. The resident in the case scenario might benefit from a near-peer mentor as well as a faculty mentor with good communication skills to help bring him a bit more out of his "shell."
- Explore the possibility of the resident potentially wanting a mentor with shared lived experiences.
- If your program has a formal mentoring program, or chooses to develop one, consider building in a process whereby the *expectation* is that as residents move through the program, get to know faculty members, explore research and career options and gain confidence, the initial pairings will be revisited and perhaps new pairings, either formal or informal, will be made.
- Discuss with faculty members their roles as potential mentors. Many do not see themselves in that role or are anxious about taking it on as they don't think they are "good enough," even though many are probably viewed as mentors by some residents already and are not aware of it. Having clear expectations and some form of faculty development may help provide faculty members with the confidence and tools they need to be effective as mentors. Be sensitive to, and discuss openly, the issues of mentors in evaluative roles with both faculty members and residents and ensure that a mutually acceptable process is in place to address concerns in this area.
- Acknowledge the need for mentorship and celebrate mentors, both faculty and resident ones, explicitly. Although mentorship is clearly rewarding for both mentors and mentees, investing in the relationship is an added time commitment for both, and a little acknowledgement can go a long way to ensuring that mentors know their contribution is valued.

Conclusion

Mentorship is hugely beneficial for residents' professional development and well-being. It is also beneficial for faculty members and has been shown to help bring groups together and foster more collegial environments. Although it may be easy for you as a PD to naturally take on that role, and to a certain extent the PD position does include mentoring, it may be beneficial to both your program's residents and faculty members to explore additional

mentorship opportunities. A better understanding of the benefits, models and potential pitfalls of mentorship will allow you to develop a process that better suits the needs of your residents, taking into account your existing training and institutional structures and the availability of potential mentors.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

13. Physician burnout and the impact on resident well-being

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Objectives

At the end of this chapter you will be able to:

- identify elements that affect the well-being of residents
- list ways to improve the learning environment to reduce burnout and enhance resident well-being
- identify strategies and resources to help improve resident wellness

Introduction

The issues of physician wellness and physician burnout have become increasingly important and recognized over the past decade. Although physicians of any age and at any stage of their career are vulnerable to burnout, the literature demonstrates that resident physicians are at a higher risk of having their well-being compromised. The most recent Canadian figures, from the Canadian Medical Association's 2017 National Physician Health Survey,[1] indicate that while 29% of practising physicians who responded to the survey were experiencing burnout, 38% of the residents who responded were frequently feeling burned out. In addition, 48% of those residents screened positive for depression and a frightening 15% indicated that they had had suicidal ideation within the past year. Further, more recent data gathered from the Resident Doctors of Canada National Resident Survey in 2020 demonstrated that 51.6% of residents report symptoms of burnout with 20.2% having thoughts of suicide. Bullying also contributes to resident burnout, and the 2020 Resident Doctors of Canada Survey notes that 64.1% of residents experienced bullying in the prior year, with the most frequent basis of bullying was due to age/seniority, followed by sex. Residents who come from diverse identities, including BIPOC, LGBTQ2S+, or those who are parenting, may have preventable experiences that contribute to overall burnout. Burnout is a serious problem, which leads in turn to serious consequences for many people, including physicians and their patients. It is abundantly clear why program directors must take resident well-being very seriously.

It is imperative that you as a program director, and all those engaged in residency education, be informed about this issue and that wherever possible, you take steps to mitigate the risks including through explicit curricular initiatives. This chapter presents you

with information on what is currently known about the factors that contribute to poor resident health. It also provides you with some ideas on how you can address this situation in your program.

Burnout and its impact on resident well-being

Defining physician burnout

You've probably heard about physician burnout many times, but how easily could you define and describe it? As the program director of a residency program, it's important that you have a solid understanding of burnout so that you are prepared to support your residents and their well-being throughout their training. To start, take a step back and consider how burnout is defined. In 1997 Maslach and Leiter defined burnout as "a psychological syndrome emerging as a prolonged response to interpersonal stressors on the job." Ruzycki and Lemaire defined it as "a work-related syndrome that occurs in occupations where others' needs come first, and where there are high demands, few resources and a disconnect between workers' expectations and experiences."[2] When you consider these definitions, it is easy to understand why resident physicians are considered to be such a high-risk group.

Three elements of burnout

Burnout is a syndrome that is characterized by three elements. As a PD, it will be helpful for you to be aware of these elements and how they typically manifest. The first is **emotional exhaustion**. Residents who have burned out feel fatigued and physically and emotionally drained, and they have lost their enthusiasm for their work. The second element is **depersonalization**. Depersonalization manifests as cynicism or uncaring behaviour toward others, particularly toward those who are being served. The third element is a **low sense of personal accomplishment**, associated with a perceived loss of meaning in the work and feelings of ineffectiveness.

All three of these elements are captured in Leiter and Maslach's description of burnout: lost energy, lost enthusiasm and lost confidence.[3] Burnout is problematic for the affected resident physicians, the patients for whom they provide care, their peers and their colleagues across the health care system. On the ground, burnout might look like excessive presenteeism or absenteeism, increased turnover and decreased job performance. In the more extreme cases, some of these signs may be visible to you as the program director, but often the problem may be very difficult to detect. The reason for this is that there continues to be stigma attached to burnout and many residents go out of their way to hide their problems for fear that they may negatively affect their training and future career prospects. It's therefore a good idea to ensure that the residents and faculty in your program are aware of these three elements, so that they can take steps to ensure their own self-care and can pick up on early warning signs in others.

Impact of burnout on resident well-being

Although burnout will look different from person to person, the bottom line is that no matter how it presents itself, burnout negatively affects a resident's well-being. Burnout has personal costs, which may include feelings of hopelessness; irritability; impatience; decreased empathy; poor interpersonal relationships with family, coworkers and patients; depression; drug abuse; or physical illness.[4] Research shows that all of these personal consequences have a direct negative effect on patient safety, job satisfaction and quality of care. There is considerable evidence that physicians who are burned out have increased needle stick injuries and decreased efficiency and their patients experience more complications; these all result in increased costs and resource use for the organization. For these reasons, it's important for your program to both mitigate the risk of burnout and ensure that there are supports available to your residents when they are suffering.[4]

Recognizing and addressing factors that contribute to burnout

There has been a substantial amount of research on physician burnout and the factors that contribute to it. As you may expect, the factors are numerous, complex and context dependent. There is some good news, though. Research suggests that recognizing these factors and taking appropriate action will make a positive difference. Table 11.1 provides a framework to help you organize and consider these factors.

As a program director, your ability to influence these factors may depend on the current state of your program, as well as external factors. A practical approach may be to concentrate your early efforts on those factors for which your sphere of influence is highest. Once you've created some momentum and have a good understanding of the needs in your program, you can expand your efforts, engaging the resources available to you. Further, you could engage your fellow program directors and your postgraduate dean in the creation of a wellness committee for your institution. In this way, you could have a positive impact on the clinical and learning environment for residents across your organization.

Table 12.1

Category	Example factors that may contribute to burnout	Example actions you may take to support your residents
Health care system	• There are pressures to contain costs • Medical professionals are expected to increase efficiencies	• Monitor and check in with your residents to explore impacts and engage learners in practical plans to mitigate the issues

Category	Example factors that may contribute to burnout	Example actions you may take to support your residents
Workload	• Residents are assigned a heavy burden of work and are given a limited amount of time to complete it • The available technology may be inadequate to support the work or may be challenging to use • On-call requirements can lead to sleep deprivation	• Monitor and take responsibility for addressing workload issues when they arise • Advocate for technology and appropriate training to improve efficiencies • Ensure call requirements meet the contractual standards • Ensure on-call workflow is designed with efficiency and wellness in mind • Exploring alternative models of call • Exploring fatigue risk management strategies (e.g. reducing non-urgent overnight pages)
Medical culture	• There are high expectations of medical professionals and a low degree of empathy for their challenges • There are generational differences in workplace expectations • Workplace bullying and discrimination	• Create wellness champion positions in your program • Develop services or programs that are accessible to residents and faculty • Encourage open conversations about generational differences in medical education • Connect residents with EDI leaders, listen deeply to acts of bullying/discrimination, and support actionable changes in these domains
The nature of individual residents	• Medicine attracts high achievers who may find it challenging to step back from work	• Ensure your selection processes reflect the mission and vision of the program • Provide access to confidential wellness counsellors • Provide a mindfulness-based stress reduction program

The factors identified in Table 11.1, along with many others not mentioned, contribute to a high prevalence of burnout among resident physicians. Multiple studies over the past decade have reported high rates of depersonalization, emotional exhaustion and overall burnout among residents. The implications for the learners are significant. Burnout will have a negative impact on the resident's professional development, as it can affect their motivation, their ability to concentrate and learn, their decision-making ability, their acquisition of knowledge and skills and ultimately the patient care they provide. Consequences outside of their work life may also include things such as alcohol or illicit

drug use, suicidal ideation, depression and career regret. Quite clearly, efforts to reduce and prevent burnout are necessary, along with simultaneous efforts to enhance the work and learning environment for residents.

Burnout and the role of the learning environment

As a program director, part of your responsibility is to ensure that residency education occurs in a positive learning environment that promotes resident wellness.[5] As you know, the learning environment comprises the diverse physical locations, contexts and cultures in which residents learn. Over the course of their training, residents learn and work in settings that include classrooms, simulation laboratories, anatomy laboratories, ambulatory clinics, acute care hospitals, long-term care homes and more. These settings, taken in aggregate, constitute a resident's complex and rich learning environment.

You and the team of people who help provide education and care in the learning environment share a common goal — better health for all.[6] Ironically, however, burnout in residents stems primarily from their experiences in the learning environment.[7] In addition to the factors listed in Table 11.1, learner-specific factors such as "inadequate preparation and support, supervisor behaviors, peer behaviors and a lack of autonomy" also contribute to burnout.[7]

Given the multiple settings and the complexity of the factors that contribute to burnout, it is challenging to know where to begin to address the learning environment issues that influence resident well-being. The good news is that you're not alone: others are considering this very question. A report produced by the Josiah Macy Jr Foundation in 2018, *Improving Environments for Learning in Health Professions Education*, provides many ideas and recommendations to guide you.[6] Their work suggests conceptualizing the learning environment as four overlapping, interactive components: the personal component, the social component, the organizational component, and the physical and virtual component. Each of these aspects can be a focus of attention when you implement changes to improve your resident's learning environment.

- **Personal component:** This refers to the interaction between the learner and their environment. The environment in which we learn and work influences our thinking, emotions and behaviours. Also, the temperament and attitude of the learner reciprocally influences the environment. *Suggestion:* Consider how your program already supports individual residents. Is this working well? What could be tweaked? What could be added?
- **Social component:** Learning happens when we engage with others. The multiple relationships your residents have — supervisor–resident, patient–resident, peer–peer — influence their learning. *Suggestion:* Consider how your program supports socialization and connection. Perhaps you have established peer-to-peer mentorship programs, engagement activities, etc. Ask your residents to tell you what is working well, what could be tweaked and what could be added.

- **Organizational component:** The organizational culture, values, policies and supports provided to your residents are markers of the learning environment. *Suggestion:* Consider whether the organizational components of your program are enhancing or detracting from your learners' experience. What are you doing to nurture the culture of your program and support its values? Is this working well? What could be tweaked? What could be added?
- **Physical and virtual component:** Resident learning takes place largely in physical workspaces that exist primarily to deliver care. What kind of facilities exist to also support learners and facilitate learning? Learning also occurs in virtual settings. What informational and technological resources are available to support this process? *Suggestion:* Take some time to ask your residents how the physical and virtual set-up supports their learning. For example, do they have enough space and technology to do their work? What is working well? What could be tweaked? What could be added?

As health professionals, we wish to provide a learning environment that is stimulating, collaborative and respectful while also recognizing that the work can be challenging and stressful. We know that a positive learning environment facilitates learning and caring within a program. If your program's learning environment is already positive then your job may be easier; you can nurture and enhance the great foundation that you've inherited. On the other hand, if there are signs that the learning environment needs improvement, then you can enhance it by working with others to deliberately choose strategies that address each of these four components.

Strategies to enhance resident wellness

Your approach to resident wellness will be most successful if it is multi-pronged. This is because there is no clear evidence that any one single approach to resident wellness is effective on its own. On the other hand, there are multiple interventions that have been implemented that show promise. Therefore, each program should consider the nature of their unique learning environment and approach it considering the need to support individual residents, the social aspect of wellness, the organization and the culture in which the residents are learning and working, as well as the physical and virtual facilities. Suggested strategies to approach the implementation of wellness programming are provided below. These lists are not exhaustive, but they do provide you as the program director with a menu of possible strategies to prevent or mitigate resident burnout.

Addressing the needs of individual residents

- Conduct a wellness survey, including an exploration on workplace bullying and discrimination
- Establish or referral to a mentorship program or peer support program, specifically for diverse residents are connected to physicians with similar backgrounds (e.g., Black or LBGTQ2S+ resident connected with a staff physician)
- Provide access to confidential wellness counsellors and culturally appropriate leaders (e.g., Elders)

- Support access to a family physician, recognizing that a resident may have specific needs for safety (e.g., Trans residents wanting a Trans-inclusive provider)
- Provide access to an employee assistance program
- Provide access to occupational health services
- Provide a mindfulness-based stress reduction program
- Adopt the Road to Mental Readiness program
- Adopt the Resident Doctors of Canada's Resiliency Curriculum
- Teach self-assessment and self-reflection skills
- Teach time management
- Provide financial management instruction
- Provide time to attend health care appointments

Addressing the need for social connection

- Organize regular resident retreats
- Establish a resident social committee
- Arrange financially supported resident social events
- Engage in athletic activities as a program (e.g., soccer team, cycling team, running team)
- Engage resident partners and family members in social events
- Ensuring that some events are accessible for residents who are parents (e.g. events take place in late afternoon) or residents who do not drink alcohol (e.g., hosting events at alcohol-free locations)
- Establish a book club
- Establish a movie/film club
- Establish a dinner club
- Establish a COMPASS (Colleagues Meeting to Promote and Sustain Satisfaction) group

Addressing the organizational component of wellness

- Engage senior leadership in this work
- Ensure alignment between the values of the organization and your program
- Establish a lead wellness position for your organization
- Establish a wellness committee for your program
- Create wellness champion positions in your program
- Establish policies to support flexibility in training, including leaves
- Ensure that part-time training is available
- Provide accommodation when required
- Establish a Balint group
- Establish a quality improvement process to streamline workflow
- Provide training on the appreciative inquiry model and organizational AI processes

Addressing the physical and virtual facilities

- Offer access to nutritious food 24 hours per day

- Provide access to clean and comfortable on-call rooms
- Offer access to a quiet room for prayer, sleep, fatigue management
- Easy access to room for breastfeeding and fridge for safe storage of breastmilk
- Offer access to childcare facilities
- Easy access to gender-neutral bathroom facilities, recognizing that having only one area in a large hospital may not actually be accessible
- Provide effective training on how to use your institution's electronic health record
- Ensure access to online library resources and point-of-care tools
- Provide transportation between clinical sites
- Provide instruction regarding professional use of social media

Putting it all together for your program

As you can see, enhancing resident well-being and understanding burnout and the contributing factors are critical roles for you as a program director. Whether you have inherited a program with robust processes in place or a program that is just beginning to design a curriculum around wellness, it may be useful for you to have a framework to which you can map your activities.

In 2015, when the Royal College of Physicians and Surgeons of Canada refreshed the CanMEDS Physician Competency Framework,[5] it was apparent that increased emphasis had to be placed on competency within the domain of physician wellness. It was clearly recognized that, to provide optimal patient care, physicians needed to take responsibility for their own health and well-being and that of their colleagues. Physician wellness is considered to be an aspect of competence that resides within the Professional Role.[5]

Professional Role: Key and enabling physician wellness competencies

4. Demonstrate a commitment to physician health and well-being to foster optimal patient care

- 4.1 Exhibit self-awareness and manage influences on personal well-being and professional performance
- 4.2 Manage personal and professional demands for a sustainable practice throughout the physician life cycle
- 4.3 Promote a culture that recognizes, supports, and responds effectively to colleagues in need

In addition to updating the Professional Role and establishing the competencies of physician wellness, the Royal College engaged a task force to further articulate the principles of physician wellness. These are presented below; they provide a framework that you may want to use in your program for conceptualizing physician wellness.

1. Physician wellness is an essential and evidence-based aspect of medical education, practice and quality patient care.
2. Physician wellness is important in all phases of the physician career and life cycle from medical school through to retirement.
3. Physician wellness is a shared responsibility between our profession, the individual, and our learning and practice environments.
4. Physician wellness requires commitment and engagement from stakeholders across the entire health care system to optimize physician health and well-being.
5. Physician wellness acknowledges our collective responsibility to communicate when we are experiencing difficulties and to listen with support and without judgement when our colleagues reveal they are struggling.

The Royal College recognizes the importance of physician wellness — this starts in training and extends through to the end of practice. CanMEDS and Competence by Design provide the frameworks to help you make resident wellness a priority. There are now accreditation standards for programs to ensure that the program director is supported in their effort to create a safe and healthy work and learning environment.[8]

Conclusion

Even excellent residency programs will present challenges to residents on occasion. The nature of the work is inherently stressful. However, residents should be provided a program in which they feel supported and respected, and they should feel that their well-being is of paramount importance to the program. It should be made clear to them that the part they play in the provision of health care is valued and that their success as a physician is the program's ultimate goal; their contributions should be acknowledged and celebrated regularly. Therefore, efforts to prevent and mitigate burnout and promote resident well-being are an essential aspect of your portfolio as a program director.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

14. Creating a safe learning environment

Author: Lara Cooke, MD, MSc, FRCPC

Objectives

At the end of this chapter you will be able to:

- define the learning environment and explain the rationale for prioritizing a “safe” learning environment
- take appropriate, timely action if you identify problems in the learning environment
- apply specific strategies for creating a safe learning environment
- describe resources for creating a safe learning environment

Case scenario

Author: Kannin Osei-Tutu, MD, MSc, CCFP (https://pdhandbook.royalcollege.ca/editors/?id=kannin)

Dr. S, a PGY 3 general surgery resident, comes to you with concerns that she is not receiving equitable access to OR cases compared to other junior residents. As you explore the issue further you learn that she has been denied operating room access and assigned to ward duties and ED consultations for the past two weeks. When you ask the resident why she thinks this happening, she tells you that the attending surgeon voiced concerns about her “hygiene” and told her that her “head scarf” was not suitable to be worn in the OR. The resident, who is of Islamic faith and wears a hijab, further explains that the senior resident said there has been “an increase in post-op infections since she has been on service” and he thinks the attending is trying to “protect his patients.”

How would you respond in this situation? What can you, as program director do?:

- To be helpful to the junior resident, the senior resident, and the attending surgeon?
- To prevent this situation from occurring again in the future?
- **Define what has happened**

1. Define what has happened?

The attending surgeon has committed both discrimination (on the basis of religion) and interpersonal racism. Discrimination is the denial of equal treatment, civil liberties, and opportunity to individuals or groups with respect to education, accommodation,

healthcare, employment, and access to services, goods, and facilities. This also an example of 1)ethno-religious interpersonal racism in this case Islamophobia and 2) racial stereotyping. The resident has been singled out because of her religious attire and ascribed the derogatory characteristic of uncleanliness. She has also been assigned to complete the less desirable clinical duties in a punitive way. The acts are egregious.

The senior resident has committed 1) interpersonal racism by ascribing disproportionate blame for an incident (increase in post-op infections) and 2) a racial microaggression by his suggestions that Dr. S's hygiene poses a danger to patients. Racial microaggression are "everyday slights, indignities, put downs and insults that racialized individuals experience in their day-to-day interactions with people. His comments can also be regarded as racist in that he has disparaged and ridiculed Dr. S because of her race-related characteristics and religious dress. This behavior is also egregious.

2. Determine the desired outcome: The goal is to ensure the resident's safety and her opportunity to be fully trained.

- For a learning environment to be safe, it must be free of racism, discrimination, harassment and intimidation. There must be zero tolerance for such behaviors.

Plan a course of action:

- This incident is egregious and warrants immediate communication with the PGME Dean who may wish to involve the section chief.
- Familiarize yourself with your institution's policies and procedures with respect to racism, discrimination, harassment and mistreatment. If such policies are absent considering exploring the reasons why.
- Familiarize yourself with your institution's policies and procedures regarding acceptable OR head coverings. If such a policy is absent, consider exploring the reason why.
- Verify what happened
- Believe the resident and validate her experience of the events. Employ a trauma-informed approach.
- Ask the recipient of the discrimination and racism (the resident) what she is prepared to disclose and to whom.
- Understand that the resident may feel reluctant to move forward given the inherit power imbalance, fear of reprisal, and fear of re-traumatization.
- Encourage the resident to have a support person present who has lived experience with discrimination.
- Clearly indicate to all parties that the behaviors are egregious and will not be tolerated.

Immediate actions that can be taken with support from the PGME dean include:

1. Removing the resident from the learning environment

2. Providing the resident with assurances against retaliation
3. Removing the senior resident and attending surgeon from the learning environment and/or suspension of teaching privileges pending the outcome of an informal or formal resolution process.
4. KEY POINT: the resident should be made aware that discrimination has occurred on "protected grounds". As such, she should be informed of her ability to explore options for resolution with the Human Rights Commission (HRC), in addition to the existing resolution structures of PGME and the wider institution.

Long term solutions may include:

- Appropriate penalties/consequences for the perpetrators (the senior resident and the attending physician) pending the outcome of the resolution process.
- Education
    - Cultural humility, anti-Islamophobia training, anti-racism, and intersectionality (for the senior resident and attending physician)
- Training
    - Bystander intervention training (for the senior resident)
    - Implicit bias training (for the senior resident and attending physician)
- Culturally appropriate wellness support (for Dr. S)

Introduction

The environment in which we learn influences our learned behaviours. This concept has long been espoused by cognitive psychologists and educational theorists.[1,2] While debate has continued about which factors foster learning and which ones may impede learning, it is quite clear that the environment plays a substantial role in determining what learning occurs.

In residency education, junior doctors are typically thrust into highly intense, chaotic environments for several years of training in what has traditionally resembled an apprenticeship. With the advent of competency-based medical education, residency education is moving away from the idea that "steeping" a resident in a medical environment for a fixed period of time will lead to "good tea" (read "competence").[4] Instead, the evolving paradigm for residency education focuses on creating an experience tailored to the learner's needs in an authentic learning environment comprised of relevant experiences complemented by frequent direct observation and feedback to support gradual progression of competence.[5]

Although the intent of regular, low-stakes feedback is to enhance learning and improve educators' ability to measure the progression of residents across the competence continuum during training, some suggest that the feedback given is not always taken up by the learner.[6] Is it possible that learning may be impeded by factors in the learning environment? There is every indication that this may be the case.[1,7,8] The state of the

learning environment in which your residents train can and should be something that you, as program director, evaluate regularly. In this chapter, you will learn about what constitutes a learning environment, why it needs to be safe, and some useful tips and instruments that will help you to develop an effective educational environment for your residents.

What is the learning environment?

Defining the learning environment is an important prerequisite to establishing a safe one. We can draw from literature in the undergraduate medical education realm. Genn and colleagues define the educational environment as those things, "educational and organizational, which embrace 'everything that is happening' in the medical school."[9] These authors use the term "environment" somewhat interchangeably with "curriculum" and note that both environment and curriculum connote "all transactions" within the medical school. This encompasses not only direct interactions with the learner but also other observed interactions and structural, systemic and cultural aspects of the learning context.[9]

One way to consider breaking this down into manageable pieces is to consider "parts" of the environment individually, while recognizing that they do interact. For the purposes of this chapter, we will consider the teacher, the teacher–learner relationship, culture, and structural supports.

Why is a "safe" learning environment important?

There are many reasons to ensure that your residents train in a safe learning environment. To name a few, there are accreditation requirements, labour laws, human rights codes, the goal to successfully match the best residents to your residency program and, importantly, improved patient outcomes. Another important reason for ensuring a safe learning environment is the impact on the residents themselves. A simple way to examine this is to consider the implications of medical training when the learning environment is less than "healthy" because of intimidation, racism, sexism, or harassment.

The literature clearly shows that doctors experience higher burnout rates than any other professionals and that the rates of depression and substance use disorders in medicine are disproportionately high. Residents experience high rates of mistreatment, discrimination, racism and harassment during their training, and these correlate with poor outcomes: high rates of suicide, suicidal ideation, career dissatisfaction and burnout, to name a few.[10,11] One of your priorities as program director is to ensure that your residents are well and that you have done everything within your power to ensure the environment in which they work is conducive to their well-being, to the extent that it is possible. To see residents failing, becoming unwell or leaving programs because they are inadequately supported in their learning environments is unnecessary and tragic.

As a program director, what can you do?

Recognize and act on red flags in the learning environment

There may be obvious signs that your learning environment is in trouble, but that will not always be the case. In your role as program director, it's important to make sure your residents feel comfortable coming to you with concerns but also to look for hints in teacher evaluations and resident behaviours that suggest things are not okay. Regardless of how "approachable" you are, remember that a true power differential exists between you and your residents. This means you cannot assume they will always come to you when there is a problem.

Clues to problems in the learning environment can arise from a variety of sources, which are outlined in more detail in subsequent sections of this chapter. However, it is particularly important to watch for evidence that residents are burning out (exhibiting lack of empathy, caring or engagement in the program, with peers or with patients; requesting leaves of absence or transfers out of the program) or avoiding certain teachers or clinical experiences (a pattern of lower ratings than usual on teacher evaluations, residents never requesting certain preceptors, residents asking to switch weeks or shifts to work with different preceptors, a pattern of requests from residents to do clinical rotations at other sites or institutions).

Explore the issue when you receive complaints about preceptors

If you are a new program director, you may feel inclined to react immediately to resident concerns about a teacher's behaviour. If there is a complaint about egregious behaviour, such as sexual harassment, racism or patient safety issues, this is absolutely the most appropriate action. You should begin by immediately contacting your postgraduate medical education office to ensure that you follow the correct policies for dealing with egregious issues. Make sure that you document the concerns in detail, in writing. Do not delay in proceeding as directed by your local policies, and enlist help from your chair if needed.

Fortunately, most teacher–learner conflicts do not stem from egregious behaviours. They are often more nuanced than a few lines on a teacher evaluation can capture. If you receive a concerning teacher evaluation, it is critical to meet with the resident in person to invite them to share the details and context of the experience. If others were present, it can be helpful to obtain their perspectives as well, if appropriate. Document the concerns.

Importantly, you must also have a conversation with the preceptor in question. You will have to balance the need to respect resident anonymity with the need to explore the situation with the preceptor to obtain their perspective. This process must include a transparent discussion with the resident to ensure that they understand that, depending on the specific issue, it may not be possible to maintain their anonymity if feedback is to be brought forward to the preceptor. If the issue is not terribly egregious, the resident may favour waiting until additional feedback to corroborate their concerns is collected from

other individuals over time, in the interest of maintaining their anonymity. Regardless, a pattern of complaints about an individual preceptor will require you to give feedback to the preceptor, explore the issues with him or her (for example, is the preceptor well?) and make a plan to support the preceptor to make improvements if indicated and appropriate. If you are fairly junior in your department and the preceptor is senior to you, you may wish to enlist the help of the department chair or another senior educator in the group to support you in the discussion.

Influence the culture

The Merriam-Webster dictionary describes the culture of an organization as "the set of shared attitudes, values, goals, and practices that characterize an institution or organization."[12] In business, and in medicine, a variety of factors have been identified that contribute to a learning-oriented culture. These include openness, a spirit of inquiry, cooperation, empathy, self-reflection and systems thinking.[13]

How education is valued within your academic institution will probably play a role in defining how your residency education program is valued and prioritized within your department. Although it is impossible to change culture single-handedly, there are some practical approaches you can employ to make sure your residency training program is "on the radar" in your department and that your residents are valued team members in the context in which they train and work.

As program director, you are responsible not only for your residency program but also for a collection of smart young doctors who will bring a lot of value *to* your group. In exchange for the teaching they provide, the members of your group gain the opportunity to learn from residents (who often help attending physicians to keep up to date) and benefit from the service the residents provide. In many programs, residents' service is a pivotal component of the department's overall service delivery and would be sorely missed if withdrawn.

With these things in mind, each program director should have a seat at the key leadership tables in their department. In negotiating your role as program director, it is important to confirm with your department chair that you have their unwavering support in decisions you will have to make concerning the residency program. This means that when your attendings need to participate in training about how to evaluate entrustable professional activities, give feedback or question effectively, your chair will help you to mobilize them to participate. You may need to encourage your department's leadership to articulate that residency education is a priority in your group, that teaching is taken seriously and that teaching evaluations are taken seriously. This messaging will influence your department's culture if it comes from the top and will help to ensure that your residents feel a part of the team and feel supported by the attending physicians.[14]

The backing of local leadership is essential when these common issues arise in departments:

- balancing service needs with educational requirements
- dealing with resident shortages
- getting buy-in from attending faculty members for new educational innovations such as competency-based medical education
- finding physicians to help with accreditation preparation, resident selection, developing remediation and learning plans, and evaluating residents

With a voice at your department's leadership table and support from your chair, you will be more able to successfully mitigate an "us versus them" culture when issues arise relating to the balance between on-call service and education. This will, in turn, reduce resentment between attending physicians and learners and avoid the propagation of disrespectful narratives that contribute to burnout and health issues.

Establish strong teacher–learner relationships

A key component of the constellation of social influences on learning, according to Bandura, is the model. Models are individuals from whom the learner derives new knowledge, skills and attitudes, both positive and negative.[1] In the context of residency education, these may be attending physicians, senior residents, allied health professionals, nurses or near peers.

In postgraduate medical education the relationship between teacher and learner is pivotal in influencing residents' behaviours. It has been suggested that there may be an educational alliance akin to the therapeutic alliance described in psychology. Telio and colleagues describe the educational alliance as being determined according to the *perception of the learner*. The alliance is formed when the learner believes that a teacher has a positive relationship with them, is interested in their learning, is clinically competent and is providing credible feedback because they observed the learner's performance.[8]

When teacher–learner relationships are sound, learner performance is enhanced and burnout is decreased.[10,15] How do you establish strong teacher–learner relationships in your program? First, make sure this is a priority in your own teaching. As program director, you will probably have more face-to-face time with the residents than anyone else in your department. Demonstrate your interest in your residents by getting to know them. Make it clear that you are there to support their learning and address their needs throughout their training, and offer an open-door policy to support them when they have questions, concerns or challenges. Recognize that for some racialized learners and those from other equity deserving groups, it will be important for you to check in regularly to gauge their sense of belonging in the program and to ask explicitly about experiences of discrimination in the learning environment. You can also add value by facilitating connections between your residents and faculty with shared lived experience. Then, with the backing of your departmental leadership, ensure that there are rewards for the best teachers, that all department members have opportunities to enhance their teaching skills and that there is a clear process to help teachers who struggle. Most institutions have faculty development offices, which develop and deliver instructional skills workshops. Each institution will have

policies on how best to manage struggling teachers. When you have a teacher who is struggling, be sure to meet with them, offer support and ensure that they avail themselves of faculty development opportunities. You may need the department chair to ensure that this occurs.

Support your teachers

The quality of an educational environment's teachers plays a key role in the perception that students form of that environment.[14,16] Residents rate learning environments highly when they perceive that their teachers have excellent mentoring skills, provide timely and balanced feedback, are accessible when needed, assign appropriate tasks for the level of training and provide clear expectations.[14] As program director, your role is to help your faculty be the best teachers and mentors that they can be. You can do this by providing them with relevant faculty development around teaching skills, providing feedback and coaching and setting expectations. You can also do this by including specific faculty development and training in topics such anti-racism and cultural humility.

Review and update system supports

Finally, take a close look at the structures in place for your residents. There are multiple structural factors that can enhance the learning environment for your residents. Many of these are enshrined in the standards of accreditation (e.g., adequate call rooms). At the same time, there are structural factors that can contribute to resident harm and it is important to be aware of these as well. The absence of comprehensive and explicit anti-racism policies and the lack of safe and effective reporting mechanisms to address race-based harm are examples of structural factors known to promote resident unwellness. However, there are initiatives you can implement to enhance the learning environment for your residents.

There are published instruments available to measure the learning environment in inpatient and ambulatory settings.[14,16] Consider reviewing these to evaluate your residents' learning environments. Structural elements to consider include providing learning objectives, allotting sufficient time to assess patients, ensuring there is time to eat and sleep, and providing access to computers, library resources and a place to store belongings.[16] Residents should have work hours that reflect their contracted duties, structured or protected learning time and orientation documents for new rotations, and they must feel "physically safe" in the work environment.[14]

In summary, the learning environment is multi-faceted, and each aspect of the learning environment can foster or impede learning. As program director, you will play a key role in setting the tone, influencing the culture and mentoring both the residents and the teachers at your institution. Your personal commitment to the well-being and education of residents will make an important contribution to the residents' experience, and it will provide a model for other teachers in your group. Your close attention to the well-being of your residents will be paramount in ensuring that they successfully complete their training and leave residency well prepared for independent practice.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

15. Identifying and supporting the resident in difficulty (including remediation)

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Dr. Alan Chaput would like to acknowledge and thank Dr. Kannin Osei-Tutu (https://pdhandbook.royalcollege.ca/editors/) for his scholarly contributions related to the unique obstacles that Black, Indigenous, and other underrepresented minority (URM) residents may encounter in residency training.

Objectives

At the end of this chapter you will be able to:

- describe the principles of identifying a resident in difficulty
- understand the steps required from identification to management and follow-up of the resident in difficulty
- identify resources to aid and support you in designing and monitoring a remediation plan
- recognize some of the unique obstacles that Black, Indigenous and other underrepresented minority (URM) residents may encounter

Case scenario

It is Friday morning and you have just sat down at your desk to begin reviewing resident files for your upcoming biannual meetings with each of the residents. Your program administrator (PA) has done a great job of making sure that all critical assessment and evaluation information that you collect on each of the residents is organized. These data include end-of-rotation in-training evaluation reports (ITERs) (which you have decided to keep even though you are overseeing a program that is now Competence by Design), national standardized written examination scores, results of mini clinical evaluation exercises (mini-CEX), multisource feedback, reflective essays on various intrinsic CanMEDS Roles, and assessments of entrustable professional activities (EPAs) that have been achieved and those that are still in progress (a summary was provided from the recent competence committee review). When you get to the fifth resident file, you notice some concerning trends. Although this resident had no known identified issues, and in fact was considered a top performer in the first two years of training, they have now dropped to the bottom of their cohort of the most recent national standardized

examination and are behind their peers. The multisource feedback has been positive overall — they are a good communicator and team player — but there are some comments about the fact that they are distracted when at work, others are concerned for their well-being and they appear burnt out. Your PA has notified you that there have also been an increasing number of sick days in the past four months.

Introduction

The vast majority of residents spend their time in their program without any issues. They will be successful in achieving all of the objectives of their rotations, or will be on track for achieving EPAs as expected, and will be promoted along with their peers and will eventually complete training and be successful in their specialty examinations. There will be a small percentage, however, who will experience some difficulties. Others in your program (e.g., PA, supervisor, resident colleague) may help you in identifying a trainee in difficulty, but the difficult task of speaking to the resident about the issue(s), and coming up with a plan, will be up to you, the program director.

Very often, the first indication of a problem will come to you by word of mouth. In fact, very often, you won't have any written documentation to guide you, but rather you will have heard a "story" from individuals who either were involved or observed something that concerned them. As a program director, it's critical that you try first to get as much "fact" (versus "story") as you can, and second, that you encourage the individual reporter(s) to document their concerns as accurately as possible. Once you have the information you need, you then need to bring the concerns forward to the resident in a supportive fashion to allow them the opportunity to provide their perspective. In some circumstances, it may be best to invite the individual who raised the concern (e.g., supervisor) to a meeting with the resident so that an open discussion can occur.

You will also want to be sensitive to and aware of the training reality of some residents from underrepresented minorities (URMs) in your program. Not only are URM learners a minority in many medical training programs, but they often face barriers to advancement, bias and harassment from colleagues, leadership and even patients during their training years.[1]

It is also important to recognize that there is often stigma associated with struggling or experiencing difficulty in the culture of medical education. As a leader and someone whom residents and faculty look up to, you have a role to play to decrease stigma, normalize vulnerability and encourage help-seeking.

Residents who are from URMs may face racial biases, which can result in additional stigma. Black residents may experience racial microaggressions from their program's faculty or their peers or they may have to contend with implicit biases, which can lead others to believe that they are less qualified than their peers or that they had matched at their residency program to fulfill a diversity quota.[2] The stigma associated with their racial

identity may trigger “stereotype threat”: residents may worry that they will behave in ways that confirm a negative stereotype that members of their racial group are less qualified, which may in turn affect their performance in ways that perpetuate the stereotype. This cycle ultimately affects residents’ perceived self-worth and their motivation to persevere in this environment, potentially threatening their retention.[3] Sense of belonging can also play a role in the performance of URM residents. As program director, you have a role to play in unpacking the impact of racial microaggressions in the learning environment and uncovering biases that may shape the perception of a trainee in difficulty. If you have a URM resident who is struggling, you should discuss these issues with the resident in an open and supportive way while recognizing that the resident may feel more comfortable disclosing their concerns to someone with lived experience of racism and/or discrimination.

Documentation

The key to understanding the nature of any performance issues that you may be concerned about with a resident is to ensure that you have documentation and evidence to support the concerns, and the more documentation, the better. There is a reason that the new accreditation standards of the Royal College of Physicians and Surgeons of Canada mandate a system of assessment that includes a broad range of assessment tools that assess all CanMEDS domains throughout the duration of residency training. Gone are the days where the only information available to program directors regarding assessment was the ITER, which was often completed well after the rotation had ended, leading to issues with recall bias and a failure to provide timely feedback. The era of competency-based medical education is now upon us and this change in educational philosophy encourages and supports frequent low-stakes, timely assessments, which should enable you to identify residents in difficulty more quickly. Early intervention is important to avoid further difficulties or psychological distress.

While it is critical to have robust assessment data to truly understand where your resident might be having difficulty, these data are also critically important to support your recommendation for a plan moving forward. Although your ultimate priority should be the resident’s well-being, you may be embarking on a process that leads to a recommendation of remediation or probation. Such a recommendation could result in an extension of training or even ultimately in dismissal.

It is important to recognize that URM residents are overrepresented in cases of probation and dismissal. When a Black, Indigenous or other racialized resident is experiencing difficulties, it is important to explore whether bias may be a factor in their assessments. American data from the 2015–16 academic year from all medical specialties demonstrated that 20.9% of dismissed trainees were Black, even though Black trainees represented only 4.6% of all trainees in Accreditation Council for Graduate Medical Education programs.[3] In one program the Black residents were dismissed at a rate 10 times higher than white residents even though they represented less than 5% of the trainees in the program. These numbers are alarming. Anecdotally, the experiences of Black and Indigenous residents in Canada are similar.[4]

Given the high stakes of remediation and probation decisions, residents may appeal the recommendation. Appeal committees are going to look at the processes that you followed. They want to ensure that there was a fair and transparent process that led to the recommendation and that the data that were used to support the recommendation were adequate (note that appeals committees are in place to ensure that process was followed; they are not there to second guess specific assessments unless there were procedural errors). Be sure that you have taken the time to review your institution's assessment and evaluation policies and procedures for residents and your institution's appeals policies.

Meeting with the resident

When you meet with the resident to review your concerns, be sure that you have reviewed all the data in the file. Approach this meeting in a supportive way; avoid making assumptions about what might be affecting their performance. One of the most common reasons for performance issues is a deterioration in a resident's mental and/or physical well-being. It's important to recognize that as the program director, it is not always your responsibility to provide wellness support, but it is your responsibility to recognize that it is a common reason that performance may be suboptimal, and you need to know where to refer the resident for support (e.g., your faculty of medicine or postgraduate medical education [PGME] wellness office, provincial resident association, provincial medical association). You should reassure the resident that whatever is discussed with these individuals or groups is confidential unless the resident gives them explicit permission to discuss specific things with you.

Understand the process and relevant policies

If this is the first time that you have encountered a resident in difficulty, even if you have reviewed your local policies, you may have questions about how to proceed or may want additional advice, particularly on the interpretation of your university's policies. If this is the case, book a meeting with your postgraduate dean to discuss the situation and understand the options that are available. This step is critical as you will need to bring this information back to your residency program committee (RPC); they will need it to determine what their formal recommendation for the resident will be.

Most often, the biggest question you will face is whether the issues that have been identified can be remediated through an informal, rather than a formal, process. In general, an informal process can be managed at the program level, with relatively simple interventions such as a change in the order of rotations or educational experiences, work with a specific supervisor with expertise in an area of weakness, guided reading, additional tutoring sessions or simulated experiences. An informal remediation plan typically won't alter the duration of time spent in training. It tends to be used when the issues are considered relatively small and you expect that the trainee is only mildly off trajectory. Informal remediation is also generally used if a single aspect of a CanMEDS Role is an issue (e.g., communication within a team) or a small number of EPAs or milestones are problematic. If, however, the issues are of a larger magnitude, if they affect more than one

CanMEDS domain or several EPAs, if rotations have been failed or if professionalism issues are involved, a formal period of remediation is required. Formal remediation involves a more formalized process where the recommendation must be reviewed and ratified at the level of the postgraduate dean or delegate, and once ratified, these decisions are subject to appeal. Additionally, as noted above, since these decisions can extend training or lead to dismissal, they can be appealed.

Creating a written plan

The decision to recommend a form of remediation should be made through discussion and review within the program. Depending on the size and structure of your program, this may be done through the RPC, or a subcommittee such as an assessment or remediation committee. Once a decision has been made to undertake either an informal or a formal period of remediation, a written plan needs to be developed. Your committee can help with this. Critical elements of the plan include:

- The specific issue, ideally categorized by CanMEDS Role
    - Note that there can be many issues within a specific CanMEDS Role.
    - Note that a resident may have issues in many CanMEDS Roles (e.g., it is not uncommon for residents to have issues in two or more domains).
- For each issue, a clear outline of the specific objectives or EPAs and milestones that need to be achieved during the remedial period and at what level
- For each issue, a plan or strategy for what the trainee will do and what the program will do to meet the specific objectives or EPAs
    - It should be clearly understood what role each person has to play.
    - It is very important to do this as it lays out accountability.
- An assessment strategy for each issue
    - This is often the most difficult part of creating the plan.
    - The assessment strategy must be specific to the issue. If no published or well-recognized assessment strategy(ies) exist(s), you may need to reconsider the objective or you may need to design your own assessment strategy, although this is not ideal.
    - The assessment strategy must be measurable.
        - Example of a poor assessment strategy:
            - The trainee must get 4/5 on “Communicator” on the ITER.
        - Example of a better assessment strategy:
            - The trainee must achieve a score of 4 or 5 on each of the five Communicator statements on each of the final two blocks of the remediation period.
        - As you develop the assessment strategy and how success will be measured for each of the issues, test the strategy by going through possibilities to see if the strategy actually works.
        - It can be quite frustrating to get to the end of a remedial strategy and try to decide on an outcome when the outcome measures you’ve selected for each of the issues are nebulous. You want assessment strategies that allow

you to definitely say that the trainee met the objective or EPA in a clear yes or no fashion.

Although the above points cover the most critical elements to include in the plan, there other pieces of information that must also be included:

- Duration
    - This will depend on how significant the issues are and will be driven to a certain extent by local policies (some universities have identified specific durations in their policies).
- Start and end dates
- Specific blocks and other educational experiences (e.g., simulation sessions) that are to be completed
- Supervisors or other individuals with a specific role in carrying out the plan
- Potential outcomes

Although not required, it is best practice to include a section at the beginning of the plan that outlines the process that was used in establishing the recommendation in addition to a detailed summary of the evidence that the program used in coming to its recommendation.

Resident wellness and accommodations

As mentioned, there is often a wellness component underlying the reason for remediation. It is important to ensure that the resident is indeed well enough to train under remediation. If not, they may be placed on a medical leave of absence by their primary care physician or other health care professional, and you will be informed by those professionals when they are ready to resume training. If wellness issues are a concern, it's possible that the resident's provider may request a graduated return to training or some other form of accommodation. You are required under human rights law to accommodate to the point of "undue hardship." Note that the provider is under no obligation to provide any specific medical information to justify the accommodation and should only do so with the express consent of the resident and where it is believed that sharing of such information is necessary.

Remediation is a stressful and challenging process. Even if the trainee did not have wellness issues before the start of a remedial period, they will often encounter them during this period. Residents may perceive that they are "under the microscope" as the remedial period is often high stakes and therefore increases the amount of pressure that the resident is under. This increased pressure will be particularly felt by racialized residents who already perceive that they are under more scrutiny than their peers when they enter their program.[5,6] In addition to their regular work, residents also have to do extra remedial activities. As a result, strong consideration should be given to incorporating some time off (e.g., half-day to a full day per week) so that the trainee can focus on reading, work on

special projects, work on specific aspects of the remedial plan and attend visits with wellness and other professionals (e.g., mentor). While this may slightly lengthen the remedial period, there is evidence that this has positive outcomes.

Areas of weakness: teaching and assessing specific CanMEDS Roles

The plan strategy outlined above can be used for all seven CanMEDS Roles. Most programs will already have the correct support tools and assessment strategies identified and available. Occasionally, however, programs struggle with how to remediate specific issues, particularly those that are related to non-Medical Expert Roles, which can be challenging to assess. If you face this challenge, there are several ways you can look for guidance. The first is to visit the Royal College website. The Royal College has recently published a toolkit (https://canmeds.royalcollege.ca/en/tools), both online and in textbook format, which includes each of the CanMEDS Roles and has many ideas for how to teach them and how to assess them. The next strategy would be to consult your PGME office, as there is often an expert in PGME who can help. Another option is to consult with other program directors in your discipline across the country or from different disciplines within your own university. Your PGME dean may be able to facilitate a meeting with another PD who has expertise in the area in which you are having challenges or another PD who has remediated similar issues with another trainee and can offer advice.

It should be noted that while the above approach can be used for all CanMEDS Roles, issues pertaining to professionalism can be more challenging to address and may involve different policies and regulations, depending on the university or province in which your program is located. Oftentimes, professionalism is dealt with under a separate policy at the university and hospital and may require different methods of investigation and remediation. A broader discussion of professionalism is beyond the scope of this chapter, but you are encouraged to review your institution's specific policies in this regard.

Conclusion

Having a solid understanding of how to approach the issues for residents in difficulty, whether the issues are small or large, and whether they involve the Medical Expert Role or another role, is a critical skill for all program directors, and it is just as important for a program director with one resident as it is for a program director with 100 residents. A robust system of assessment is the cornerstone of the identification of residents who are not on a normal trajectory and will allow you to intervene at an early stage before minor issues become major issues. A written plan to address the issues is strongly recommended for informal remediation, and it is mandatory when formal mediation is required. It is very important that the plan contain enough detail that it can serve as a stand-alone document to both justify the remediation plan and provide the specific details of how it will be carried out and how the outcome will be adjudicated. Awareness of the impact of microaggressions on trainee performance and well-being is critical. It is also critical to identify wellness issues and provide the necessary support throughout the remedial

process, and you should anticipate the need for accommodations during remediation. Remember that you are not alone in the process of remediation. Actively seek out the help and advice of others, particularly your postgraduate dean. There are a lot of great resources to help support you through this frequently complicated process.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

16. International Medical Graduates (IMGs)

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Objectives

After reading this chapter you will be able to:

- describe the changing landscape of International Medical Graduates
- discuss perceptions about IMG learners
- identify the challenges and opportunities experienced by IMG physicians
- develop an approach to support IMG learners in our training programs

Case scenario

Dr. Tomah is the residency program director for Dr. Jennifer Doe, an IMG. During an eight-week internal medicine rotation at the start of Dr. Doe's first postgraduate year, her primary supervisor for the fourth to sixth weeks comments to Dr. Sappier that Dr. Doe has excellent book knowledge and she can give an extensive differential diagnosis for any chief complaint during teaching rounds. However, the supervisor has also noticed that Dr. Doe has difficulty applying her knowledge base to actual patient care. She struggles with clinical reasoning and independent generation of care plans for her patients. When the team meets at the end of the day to review patients, she is quiet and does not participate in the discussion unless asked questions directly. The senior resident has also shared with Dr. Tomah his concerns that Dr. Doe takes about one to two hours for a new consult in the emergency department and for her daily SOAP (subjective, objective, assessment and plan) notes; she tends to copy almost verbatim what another resident has written earlier in the day.

Introduction

Nearly 25% of practising physicians in North America received their undergraduate medical education outside of Canada or the United States.[1] These types of trainees in Canadian postgraduate training programs fall into three categories:

- International IMGs (I-IMGs) are physicians who have immigrated to Canada with a medical degree from a World Health Organization (WHO) listed medical school outside Canada or the United States.

- Canadian IMGs (C-IMGs) are Canadian citizens or permanent residents who have gone abroad (outside Canada or the United States) for their medical education. Canadian studying abroad (CSA) is another term used to describe a learner in this group.
- Internationally funded trainees (IFTs) or visa trainees are learners from Gulf States whose postgraduate education is sponsored by their country of origin. IFTs apply directly to postgraduate training programs at Canadian medical schools; they do not need to go through the Canadian Resident Matching Service (CaRMS). Learners in this unique group are *not* considered IMGs.

Both C-IMGs and I-IMGs enter Canadian learning environments with a diversity of life, educational and work experiences. They have studied medicine in educational systems that have differing curricula, resources and patient populations. Part of the mandate of postgraduate medical education in Canada is to ensure that IMGs transition and integrate effectively into residency programs and clinical practice settings.

Changing Landscape of IMGs

Canadian residency application and selection processes are complex. Both C-IMGs and I-IMGs must go through a series of steps before applying for designated IMG residency positions in Canada through CaRMs. Candidates must have completed the Medical Council of Canada Qualifying Examination Part 1 (MCCQE1), the National Assessment Collaboration (NAC) objective structured clinical examination (OSCE) and language proficiency examinations (if they communicated with patients in a language other than English or French during their undergraduate medical training). The recertification and residency matching process require emotional, physical and financial resources.

The degree of competition for the small number of IMG residency position is enormous. In the 2022 R-1 Main Residency Match, only 439 of the 1322 IMG physicians who applied (33%) were successful in securing a residency spot. In contrast, 96% of the Canadian medical school graduates (CMGs) who applied (2844 of 2953) were successfully matched (https://www.carms.ca/pdfs/2022-R-1-data-snapshot.pdf). The total number of available residency positions, the specialties in which they are available and the proportion open to CMGs versus IMGs are determined by provincial and territorial ministries of health, which also fund these positions.

The IMG match rates have been consistent for the last 10 years, with only minor fluctuations; however, C-IMGs have been obtaining an increasing share of the designated IMG residency positions in the past several years. In 2011 (https://www.health.gov.on.ca/en/common/ministry/publications/reports/thomson/v1_thomson.pdf), C-IMGs represented approximately a quarter of the IMG applicant pool in Canada, but they received about half of the available IMG residency positions in Ontario. The number of IMGs who earned their MD degree (https://caper.ca/sites/default/files/pdf/img/2019_CAPER_National_IMG_Database_Report_en.pdf) in Ireland and completed their postgraduate training in Canada increased by 197% between 2010 and 2018. Similarly, since that period, the numbers of IMG graduates from

the United Kingdom and Australia who have matched into Canadian residency programs have increased by 130% and 96%, respectively. The 2020 national IMG data base report (https://caper.ca/sites/default/files/pdf/img/2020_CAPER_National_IMG_Database_Report_en.pdf) produced by the Canadian Post-MD Education Registry (CAPER) indicates that Ireland, the United Kingdom, the United States and Australia continue to be among the top five countries where matched IMG trainees have obtained their MD degree in the last several years. These matching trends raise serious concerns about lack of equity in the selection process for IMGs in Canadian training programs.

Once matched, it is imperative that IMG residents become well integrated into their new training and work environments. Association of Faculties of Medicine of Canada's (https://www.afmc.ca/resources-data/social-accountability/future-of-medical-education-in-canada/) mandate postgraduate medical education systems to *"ensure the effective integration of IMGs into Canadian residency programs and their transition into practice must be a priority".* A major challenge for I-IMGs is the need to adapt to a new country and its medical system, including such diverse aspects (https://srpc.ca/resources/Documents/CJRM/vol13n4/pg163.pdf) as "differences in disease patterns, levels of technology, treatment options, forms of health care delivery, language, culture, lifestyle, gender roles and, in some ways, status." I-IMGs enter North American residency training programs through a variety of educational and vocational routes, possessing various levels of English and/or French language skills and a diversity of life experiences. Some I-IMGs have practised medicine before immigrating, while others arrive straight out of medical training. All these factors affect their educational needs.

In contrast, C-IMGs may not need to adapt to the social norms of a new country when they return to Canada, but they face challenges nonetheless. In 2010, the last year for which national data are available, more than 3500 Canadians were studying medicine abroad at 80 medical schools in 30 countries. C-IMGs study in educational systems with widely varying curricula, resources and patient populations. For C-IMGs, the choice of a medical school depends on many personal and financial factors. Those with more financial resources tend to choose medical schools in Australia and Ireland.[2] Caribbean medical schools are also very popular because of their geographic proximity to Canada and pre-clerkship rotations based in US medical schools. In many of these medical schools, students are not given much responsibility; they don't carry their own patients or do overnight calls. Their role is more like that of a shadow learner, observing a resident or staff physician delivering patient care.

Common Integration CHALLENGES Program should acknowledge and address

The process of adaptation

Wong and colleagues have suggested IMGs must go through three phases of training and practice experiences — loss, disorientation and adaptation — before they can achieve full integration and reach their professional potential in their recipient medical communities.[3]

IMGs experience loss of their professional identity and status as a physician at an individual level; the sense of loss is more profound in I-IMGs who were practising physicians or subspecialists in their home country. Most interventions described in the literature address early disorientation (usually with dedicated workshops or orientation sessions before or at the beginning of training).[4] Most of these early-phase interventions, however, focus on teaching all IMG physicians about communication and cultural issues that may not be relevant to C-IMGs, who are very comfortable with Canadian culture in general.

Attending a one-time orientation program or session is not enough. Both I-IMGs and C-IMGs experience a period of disorientation and transition despite participating in mandatory orientation programs before or at the start of their residencies. This suggests that differences beyond general cultural ones are relevant for IMGs, including differences in the medical system and the knowledge that physicians are expected to have in Canada compared with in the countries where they were trained.[1] Najeeb and colleagues suggest that the transition from the disorientation phase to the adaptation phase differs by IMG group: "general cultural adaptation is more relevant to I-IMGs, whereas adaptation to educational and healthcare system is pertinent for both groups."[1] On the other hand, as Canada is a country of uninvited settlers, there have been instances where I-IMGs and C-IMGs have gone to medical school in the same country and have not been all that different in terms of their educational needs. This can further complicate curriculum planning but may positively increase social cohesion between the two groups of IMGs.

Although IMGs make the transition toward adaptation over time as they gain work experience in the Canadian health care system, targeted curricular innovations accelerate this phase for both I-IMGs and C-IMGs. Programs and organizations need to provide ongoing support to both I-IMGs and C-IMGs during their residency to help them transition from the disorientation to the adaptation phase of their experiences. These efforts must be tailored to the needs of the individual resident, but they should also address faculty and training program factors that influence the transition process. Program directors are encouraged to reflect on and draw meaningful connections from both the personal and the programmatic perspective to identify areas of improvement in their program's selection criteria and identify opportunities to implement further innovations in their programs specifically for IMG learners.

Othering

IMG learners, despite having been accepted into competitive residency programs, perceive that they are treated differently by faculty members and resident colleagues because they carry the label of IMG. I-IMGs feel that they are discriminated against because they are recognizable as a visible minority because of their race, ethnicity, communication style, accent or way of dressing.[1] However, C-IMGs also experience the same preception of discrimination because of their inability to obtain admission into undergraduate medical training at a Canadian medical school and because they may have received their education in a for-profit medical education system. The universal feeling among IMG residents of being "othered" by many of their peers and teachers further contributes to their

disorientation and delays the process of integration; it also raises concerns about equity within Canadian training programs. In addition, it points clearly to the need for more faculty development initiatives.[1]

Return of Service

All Canadian provinces except Quebec and Alberta ask IMG residents to sign return of service (ROS) contracts requiring them to practise medicine in underserviced areas after completing their residency training. The ROS limits the recruitment of IMG faculty at large academic centres (as they are often not in underserviced areas), further reducing IMG voices at residency program leadership tables. This lack of inclusion of IMG faculty in curriculum planning and implementation also impacts the transition and integration of IMG residents. Owing to ROS contracts, there are very few IMG faculty members who can act as role models for IMG trainees.

TIPS every PD should consider: [1,5,6]

1. Continue to innovate and develop both general and specialty-specific orientation programs, ensuring that they focus on the needs of both I-IMGs and C-IMGs.
    - Orientation programs should offer resources to help I-IMGs to adapt to new cultural norms (e.g., dress code, weather changes, communication expectations, housing, childcare and financial support) as needed.
    - Resources to facilitate integration into the new workplace culture should address the needs of both C-IMGs and I-IMGs. Patient autonomy is a hallmark of health care delivery in Canada and should be a focus in orientation programs. Teamwork with allied health care professionals, use of electronic medical records, nuanced goals of care conversations and health care resource availability/allocation are additional themes that can be covered.
    - Consider developing a handbook with important resources and information to clearly set out the expectations of IMGs' roles and responsibilities as postgraduate learners in your program.
2. If you don't already have one, create mentorship programs for IMG residents to provide ongoing support to facilitate their transition, integration and adaptation process. Multiple mentorship models have been developed; a longitudinal collaborative mentorship model with faculty and peer support is one way to provide ongoing support.
    - Matching junior IMG residents with senior IMG residents ideally from the same training program at the start of residency can be a helpful strategy. As peer mentors, senior IMG learners can provide positive role modelling and potentially negate junior IMG learners' perception that they are being treated differently or "othered," because their peers are helping them integrate successfully to reach their full learning potential. Seeing senior IMG peers who are progressing successfully also provides junior IMG trainees with emotional and appraisal support.

    - Ideally, the faculty mentor assigned to an IMG trainee should be experienced in training and educating IMGs. However, some residency programs do not have enough IMG faculty members to fulfil this role because, as discussed above, IMGs often have to practise in underserviced areas owing to ROS obligations. If this is the case in your program, one way to mitigate this challenge is to assign a dedicated faculty lead for all of your IMG trainees. This would be an IMG faculty member or a non-IMG faculty member very experienced in working with IMGs who would not be involved in evaluating the IMG trainees' performance but who could gain their trust because of their prior experience and relatability and could provide them with support in a way that ensures anonymity and confidentiality.
3. Consider providing educational programs for your residency program's faculty members. Faculty development programs and initiatives can provide insight to staff preceptors and supervisors about the heterogeneity of IMG learners, the degree of competition in the residency matching process, the diversity of IMGs' learning needs and ways for teachers to meet specific needs of IMG residents. Najeeb and colleagues suggested that such programs should "incorporate concepts of intersectionality and cultural safety which are normally discussed in the medical education literature in reference to interactions with diverse patient groups rather than with learners."[1] These initiatives will prepare and empower faculty members to foster a safe environment and to supervise IMG trainees in a culturally sensitive, equitable and inclusive manner.
4. Explore the need for structural changes at the program level to address any systemic and/or individual discrimination perceived by IMGs. These changes may be needed for IMGs to truly feel valued and have a sense of belonging in their residency training programs. IMGs do feel valued if their prior educational and work experiences are acknowledged by their peers, faculty and program leadership. For example, an IMG trained in Asia or Africa will have more experience in managing infectious disease like malaria or tuberculosis than a resident trained in Canada. An appreciative inquiry lens can lessen the sense of loss and disorientation.
5. Advocate for changes at the provincial and national levels to allow IMG physicians to play an important role in the Canadian health care system. Integrating IMG physicians effectively is fundamental to achieving the right mix, number and distribution of physicians across Canada. This will require concerted action by governments, including immigration authorities, licensing authorities, universities and health systems.
    - If your province does not have ROS requirements, encourage the retention of IMGs who graduate from your program as academic staff. If your province has ROS requirements, you can advocate for IMG physicians to be offered an attractive sign-on package when they complete their ROS, to support diversity and inclusion through the recruitment of IMG faculty.
    - Create pre-residency externship positions to allow IMG physicians to gain experience working in Canadian health care settings.

- Advocate at the national level for your specialty to develop accelerated residency or practice-ready programs across Canada for IMG physicians who have years of work experience in your specialty.
- Advocate for innovation in the selection criteria for the IMG matching process by incorporating equity, diversity and inclusion principles.

Conclusion

IMGs are now a large part of the physician/professional workforce in Canada. There are significant training entry barriers and challenges in fully integrating IMGs into the training programs. Supporting and integrating IMG learners requires a careful learner centered approach with dedicated faculty development and change in organizational culture. Program directors can be innovative leaders and change makers to facilitate transition and integration process of IMG physicians.

Case resolution

Using a careful, learner-centred approach, Dr. Tomah ascertains Dr. Doe's understanding of her postgraduate residency training integration and transition process. Dr. Doe tells Dr. Tomah that her family immigrated to Canada when she was seven years old, and she received the remainder of her elementary and high school education here. She went to her parents' home country after high school to study for her MD degree. She graduated about a year ago and got matched via CaRMs on her first try. She had no Canadian clinical work experience (electives). In her undergraduate medical training, students worked in a protected environment with no major responsibilities other than helping senior residents and faculty when asked. They were not supposed to volunteer information unless asked directly, and it was expected that they would not ask for help but rather would figure things out on their own. Asking for help was considered a weakness. Dr. Tomah matches Dr. Doe with a senior IMG peer mentor and ensures that an IMG faculty member (not involved in her formal evaluations) is also available to her through the residency program. Confidential one-on-one communication and constructive feedback with dedicated ongoing support help her immensely to adapt to her new work environment. She successfully transitions into her residency program and completes her training, becoming a practising physician in Canada.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

17. Leading change and leadership skills

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Objectives

At the end of this chapter, you will be able to:

- create a clear purpose, strategy, goals and objectives for change
- build a change team
- lead change (create reasons for change, enlist your stakeholders, and identify new behaviours and habits to support and reinforce change)

Introduction

The demands of today's volatile, uncertain, complex and ambiguous (VUCA) environment are placing extraordinary pressure on program directors. There has never been a more demanding time to lead, as we grapple with a health care world that is rapidly evolving. This transformation is being driven by many trends, including economic pressures, demographic changes, incorporation of equity, diversity, inclusivity, and accessibility (EDIA) principles, artificial intelligence and technology shifts, all of which call for greater innovation, yet often with less resources and financial support. To manage the flux that we're facing in our workplaces, we need to be prepared and equipped to lead change. This chapter briefly describes key change leadership strategies that you can employ in your role as program director (PD). The goal is to equip you with the skills, practices and confidence you need to be an effective change leader.

Where to start: build the foundation

At one or more points in your tenure as PD, you will probably be faced with the challenge of knowing something needs to change but feeling overwhelmed at the prospect of having to figure what needs to happen and how to do it. Implementing change is more art than science. There is no one model that is guaranteed to work in every situation. As a PD, your real work in leading change is about making sense of a complex situation to identify the elements that will make the most significant contribution to effecting change. Leading change is about being willing to assume leadership, building teams and trusted relationships, finding compelling reasons for change, mobilizing others, and being willing to start the change process and then adapt as everyone learns, all while under pressure and discomfort. Even though leading change — particularly complex change — in medical education is challenging, it's a noble cause: there is no other way to improve the education

we provide to future physicians, and it will make our medical cultures and organizations better. As change guru Peter Block said, “the price of change is measured by our will and courage, our persistence, in the face of difficulty.”[1]

It is not easy to implement change in residency programs. Postgraduate medical education is a nonlinear complex system that interacts with many other components of an academic health care system, ranging from community clinics to tertiary care hospitals to national governing bodies, with many other institutions in between. These organizations may operate in silos, with differing cultures, values and beliefs. Implementing change that can have a lasting effect across all these domains can seem daunting — but it is possible. If you take a structured approach, you will help not only yourself but also the people who look to you for direction and support. A structured approach is a key ingredient for success — without it, most change initiatives fail. The next section will set out some of the key practices most associated with successful change processes, which you can employ as you structure your own change process.

Lead the way from within your program

As a change leader, you will have to provide active and strong leadership/sponsorship throughout the entire change process: you will have to provide reasons for the change, assess the potential impact of the change you are proposing, engage stakeholders and then communicate clearly with them throughout the process, ensure that everyone is clear on what needs to be done and is working with the same objective(s) in mind, provide coaching and support, and manage through reactions of stakeholders. The leadership gap, which can be defined as the gap between the leadership competencies that leaders currently have and the ones they need to lead effectively, is consistently cited as the biggest barrier to successfully implementing change within organizations. Leading change requires more than subject matter knowledge and technical expertise. It requires the capacity to deal with interpersonal, relational and group dynamics.

Define the change

Prior to embarking on a change process, it is crucial to have defined the issue and have a systematic approach to choosing potential solutions. Now, as you embark on a change process itself, the first step is to define the change that you’re envisioning. Can you make clear the change that needs to happen? Why it needs to happen? Who it is going to affect? How it will improve your program? Whether it will provide additional benefits outside your program? Imagine yourself on an elevator with one of your colleagues. You have this great idea you would like to implement for your program — can you quickly articulate exactly what it is you would like to change before your colleague gets off on the next floor? Once you have a good understanding of the change you would like to implement, then you can start to build your team.

Build and lead a cohesive team

Successful change can require mobilizing large numbers of people toward the vision of an improved future. This important relational work facilitates readiness for change while addressing the perspectives, priorities and needs of the large number of individuals and groups who have a stake in the change. Start small, and then attract and connect a team of people by building relationships and creating clarity. Don't go it alone. A good place to start enlisting your team is to *find your innovators and early adopters*. Every program has them — you just have to look for them. Work with these people rather than pushing against those who are not yet ready to adopt and have higher resistance levels. Additionally, look to enlist those who may be most affected by a proposed change – they likely have perspectives that may be missed if you focus on those who are less affected. In later stages of change, having team members who are highly affected by change (i.e. lived experiences in EDIA language) contributes to better solutions and a greater chance of buy-in by highly affected groups.

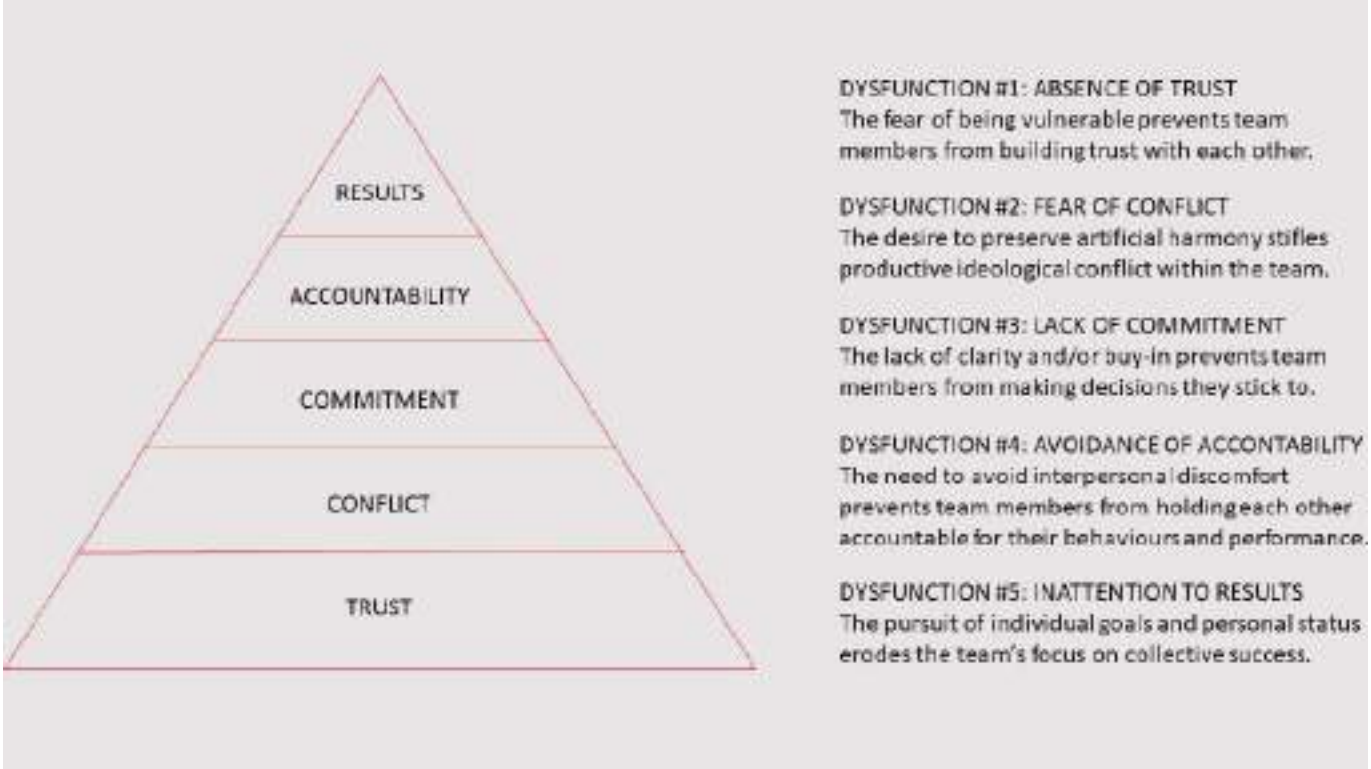
Patrick Lencioni, one of the leading authorities on team development, defines a team as a small group of people who are collectively responsible for achieving a common objective for their organization.[2,3] The size of the team matters; he recommends that teams should be made up of three to 12 people to maximize their effectiveness. A key component of team effectiveness is the quality of communication that results from balancing advocacy and inquiry. Lencioni's model for team effectiveness sets out five factors that cohesive teams embrace (Fig. 14.1).[4] These are all cumulative.

- **Trust** – Trust is a precondition for change and makes teamwork possible. People need to trust in change leaders to follow their change agenda. Leaders often overestimate support. When you are making a change in your residency program, it is your role as PD to create a safe environment in which your team members can be vulnerable. Particularly in situations where traditionally underrepresented individuals are giving their perspectives or lived experiences that may not be experienced by the majority of the team. The only way you can do this is to model and lead the way by being transparent, admitting your own weaknesses and mistakes and asking for help. When teams build trust they are more able to engage in productive conflict by including and exploring differences and working toward common solutions.
- **Conflict** – To encourage your team to engage in more healthy conflict, it is helpful to establish rules of engagement. Declare that silence during discussions will be interpreted as agreement. This will encourage people to weigh in to ensure their perspectives are heard. It is also imperative that you recognize when conflict alienates those who are marginalized, especially when making change in EDIA topics. Keeping in mind who's voices and opinions are easily heard and centered in a conversation may help you to realize that valuable perspectives may be lost. As the change leader, it is up to you to steer the conflict to "centre the margins" in the safe environment of trust you've created. Healthy conflict helps teams to achieve commitment.
- **Commitment** – Commitment can only happen if people are provided the opportunity to share their perspective. If people don't weigh in, they can't buy in. At the end of every discussion go around the room and ask every member of the team for their

commitment to a decision. Note that this is not about reaching consensus: it is possible for people to disagree and still commit to the decision. Rather, once everyone has been heard, you can then make a clear decision so that everyone walks away understanding what agreements have been reached and what specific actions will be taken next.

- **Accountability** – You and your team members need to hold one another accountable to commitments and actions. You can then review these commitments in one-on-one and team meetings.
- **Results** – Once your team has established trust, made commitments and established accountability then team members can work on collective priorities and achieve results.

Figure 16.1: Lencioni's trust pyramid: the five behaviours of a cohesive team.



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Early in the Change process

Why change is hard and how to move forward

In speaking with PDs across the country about the challenges of implementing change, such as the transition to Competence by Design, the issue they have most frequently raised is difficulty with engaging faculty, residents and other key stakeholders. This is inevitable — attempting to transform the daily behaviour of people is no simple task. Atul Gawande, in

his book *Being Mortal*, quotes Dr. Bill Thomas: "Culture is the sum total of shared habits and expectations … Culture has tremendous inertia. That's why it's culture. It works because it lasts. Culture strangles innovation in the crib."[6]

We know from neuroscience and psychology that we are wired to resist change because it requires us to replace our trusted standard operating procedures with new behaviours and habits. This is very taxing for our brains, which are ruled by two different systems, the rational and emotional, which often have competing needs. As Chip and Dan Heath said in *Switch: How to Change Things When Change is Hard*, the rational mind wants a great beach body and the emotional mind wants an Oreo cookie.[7] When a change comes along, most people who hear about it might agree that it is the right thing to do and may see the value of the vision — this is the rational mind response. However, the rational mind can also overanalyze, get paralyzed by uncertainty, and see threats and problems everywhere. In the meantime, the emotional mind is freaking out because it loves the comfort of the status quo and can't imagine how it will find the time to change and adopt new habits and activities. These two streams of discomfort can overwhelm any change initiative. Now imagine a department full of individuals hardwired to resist change. Overcoming their resistance is going to take a bit of strategic planning and persistence.

Recognize and normalize the dip

The path to a new way of doing things rarely follows a straight line. Change can be messy. Expect that there is going to be a "dip" along the way that can feel like a threat; it might include stress, disruption, fatigue, discomfort and setbacks. The journey to change usually takes longer than we'd like. It's natural for there to be tension as people adapt to change and make it their own. As soon as you begin a change initiative and articulate a vision for a new future you have already created difference and possibly tension, discomfort and conflict. At some point in the change process you might be confronted with a different perspective (either from a person with whom you're talking one on one or from a room full of stakeholders) — it's natural to react to this and feel a sense of loss that can rock your self-image. But don't let this dip erode your commitment and willingness to change. Hold fast to your belief that change is necessary, even if the way you go about this change may differ based on others' perspectives. In leading change, you need to be able to wade into discomfort and vulnerability. As Brene Brown says, "Vulnerability is the birthplace of innovation, creativity and change" [8] — hopefully in an environment that feels safe and does not take you too far outside your comfort zone. *If you and your stakeholders are not uncomfortable, you are probably not changing.* This is especially true when reflecting on changes related to EDIA. Through recognizing our own feelings of discomfort in our personal role in racism, gender discrimination, transphobia, etc., we can help focus on the elements that will make the greatest positive difference. A key role for you as a change leader is to build your own resilience and guide others to navigate the changes in a sustainable way, with persistence and energy.

Cooperate with the way people change

So how can you overcome the discomfort and resistance of your stakeholders and move forward? In *Diffusion of Innovation*, Everett Rogers says that an idea for change will not be embraced by everyone at first.[9] Rather, the change will initially be embraced by a small group of innovators and early adopters who will start small, practise new behaviours and make their progress and learnings visible (Fig. 14.1). Robert Cialdini offers more practical tips in his book *Influence: The Psychology of Persuasion*, describing six principles of influence.[10] He shows that we are all influenced by those around us. Over time change gains momentum and spreads more widely as the early adopters show their progress and others join the movement, not wanting to lose out. Once enough individual adopters have joined in, your change process will reach critical mass and the innovation will be self sustaining. For any innovation, some people will be late to join; you do not need everyone to adopt your change at the beginning. Be selective in who you recruit at the outset, and focus on achieving critical mass of adoption. The rest of your department will follow once you reach this point. Derek Sivers' *"Dancing Guy (https://youtu.be/fW8amMCVAJQ)"* video is a fun way to walk through the leadership change process.[11]

Involve people throughout the process of change

Change is not a linear process; it is more like white water rafting than rowing in a regatta. As you implement change, you will often take two steps forward, one step sideways, and one step back, make mistakes and encounter obstacles, risks, discomfort, disappointment, misunderstandings and vulnerability. No changes are immune to this reality. Change is often referred to as something you "roll out," and we all use terms that imply control — we assume that somehow we are the drivers and managers of change and think it will happen our way and on our schedule. In fact, most changes are not accomplished in a one-time roll out but rather through multifaceted efforts that may evolve over time.

For instance, when began to roll out in Canada, the Royal College and community of change makers including the PDs, learned that the real work is to involve people to build readiness to change and co-create shared solutions. Capturing the minds and hearts of intelligent people comes down to a few simple (but not necessarily easy) things. It gets messy, especially if you want to make change happen on your own set timeline.

Ultimately, it's all about involving people to determine how the change is going to work. People own and support what they help to create. This is at the heart of change. Nothing empowers people more than being involved and having a say in how the change can be done. This can be a simple as you returning from a Competence by Design workshop led by the Royal College and saying, "As we implement Competence by Design in our program, here are the three key things we are required to do to meet the standards. Who would like to be involved to figure this out for our program?" Invite people to evolve the idea and give them room to create the best solution for their unique context.

Facilitate reasons for change

A vital part of leading change is to help others to find their reasons for change. To do this, you will need to take an iterative approach to framing and reframing key themes that capture the attention of others — themes that resonate and that people care about will motivate them to support the change with shared purpose, drive and passion. Data and intellectual appeals are necessary but not sufficient. You also need to share stories that generate emotional energy and critical self-reflection, provide important examples of what works and how to overcome challenges, build confidence in your team's ability to make change happen and mobilize people to do what is possible based on what matters to them. Nothing influences people more than seeing how trusted peers achieve results.

As early adopters in your program start to make progress and learn valuable lessons, make sure you *make their success visible*. Publicly share the first small successful steps toward change. Cialdini calls this "social proof." [10]This is a key strategy that will enable your team to clone or copy successes and light a spark that will spread throughout your program. People do not want to be left behind and miss out on success. Dr. Rob Anderson, a previous PD of Anesthesiology at the Northern Ontario School of Medicine, said this about the experience of transitioning to Competence by Design: "We shared every success. We tried to make it about the program and others involved. No achievement was too small not to celebrate. We were creating a brand new program and I wanted my team to be excited." Success is contagious. Everyone loves to hear positive outcomes, so don't forget to celebrate the small steps as you continue on your change journey. However, it is key to remember to balance celebrating success with humility and an ongoing recognition of work that remains to be done. For example, while it would be a success to implement an Indigenous health curriculum for residents, this is one step in a much larger process. Acknowledging the work still to come can overcome concerns, particularly in EDIA-focused work, of virtue signalling. Also, consider highlighting the work of a team member or leader with lived experience as a method to contributing to equity, with their permission.

Getting into action

Identify new roles, actions and habits to create change

In the early stages of your change process, you will be spending a lot of time making decisions about what the change is and how it will be implemented. As the change progresses, you will need to pivot to establishing clear roles, behaviours and habits. These are just as important to the success of the change as your program's resources, structure and systems and your change strategy. Establishing new ways of doing things can take some practice, learning and adapting. Organizational culture is just a collection of habits. Help people in your program to ask "What is my role in this change?" One of your key roles as a change leader is to help everyone involved to identify and practise new behaviours and build new habits. This will take time and feel uncomfortable, and it will require some experimenting.

When it comes to changing behaviour, less is more: identify one new behaviour to start or stop at a time. Try out the new behaviour and learn from what happens. Some experiments will be a waste of time and others will lead to some positive results. Identify what action you will take and how you will assess the results. Commitment to new behaviours develops over time; it occurs as experience is gained and lessons are learned.

Keeping in mind our insights from Rogers' diffusion of innovation[9], start with a small group of the ready, willing and able, and identify specific actions for this group to take. The rational mind can be inspired by the long-term vision and follow an action plan. But don't expect people to change just by hearing about lofty goals, visions and documents; you will have to *work together with them to identify practical everyday actions*. For example, as Dr. Steven Katz, said Competence by Design is about spending two or three minutes a day with your resident where you focus on one thing that they can do better.[12] Major change will happen as a result of the aggregation of lots of small changes made by many people consistently over time that will collectively generate unstoppable momentum. The simplest way to generate this momentum is to determine what activities each stakeholder must engage in every day, week, month and year and then encourage them to practise them.

Communicate early and often

Once you have established your leadership role, defined the change, built your team, identified your early adopters, helped everyone to find their reasons for change, and established clear roles and behaviours, remember to communicate continuously during the change process. There is no such thing as too much communication; in fact, many problems can be traced back to poor communication. Consider who is the best person to deliver each message. As noted earlier, people are influenced by their peers and so it is crucial to engage peer champions in enlisting and mobilizing others as trusted communicators and influencers. You will also need to strike a balance between communicating plans and details of the change as well as create opportunities for face-to-face interactions including coaching and supporting people through .

Embrace change with a growth mindset

Expect setbacks: they are a natural part of any change process. Change takes time and will involve some missteps. Model how to handle setbacks, and help people stretch and grow to be bigger than the challenge. Do this by approaching hurdles with curiosity, starting small, trying things, taking in feedback, learning and adjusting. The change process is a U-shaped curve. You will start with a compelling vision and will hope to arrive at a positive future. Everything in the messy middle is change, growth, learning and adaptation. Implementing complex change can involve many hurdles that can test your team's commitment and can make people forget their common purpose to improve medical education. A good mindset for change can help you to overcome challenges and navigate choppy waters. Cultivate a *beginner's mind* (a state of mind in which you are free of preconceptions about how things work, filled with curiosity and open to possibilities) and embrace experimentation. Changing a complex human system such as medical education is an adaptive challenge. This means your first iteration is probably not the best, so be willing to quickly let go of

what is not working effectively. Be curious and invest time in trying to identify the patterns that make a positive difference. Indeed, after multiple iterations your ultimate design may not look at all as you predicted, particularly as you adapt it to work in unique local contexts. The most important thing is that you are taking a step in the right direction.

Tips

1. Share tools and a story.
2. Enable people.
3. Go for progress, not perfection. Make progress visible for all to see. Celebrate small successes along the way.
4. Learn together and leverage learning in your community.
5. Act swiftly to remove barriers and address resistance by listening to concerns and working with people to co-create solutions.
6. Lastly, remember to have fun!

Conclusion

Don't go for perfect. Get started. As a PD you will be invariably be faced with the need to change. Implementing change takes time, thoughtfulness and a strategic mindset. Start with early adopters who will take the time to learn about the change, take the risk to try it, take their peers' time to tell them about it, and model it. Make the change process less onerous by focusing on the elements that will make the greatest difference. Involve others to create the new behaviours, roles and habits. Remember that habits are the building blocks of behavioural change and that all change is behavioural.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

18. Challenges for large residency programs

Author: Steven J. Katz, MD, FRCPC

Objectives

At the end of this chapter you will be able to:

- outline issues commonly faced by large residency programs and provide solutions
- describe at least five key ingredients to set a large program up for success
- describe opportunities provided by large residency programs

Introduction

Becoming a program director (PD) is often intimidating: there's so much to learn, and so many people depend on you. This is true for all PDs, whether you're the PD of a big program or a small program. As you read this chapter, you will probably sense very quickly that most of the challenges that are discussed are not unique to large residency programs. In fact, most are probably common to all programs, regardless of their size, and this is true of much of the advice in this chapter too.

What is unique about large programs is just how quickly things can deteriorate if challenges are not addressed. For this reason, this chapter is as much about understanding what the challenges are as it is about finding solutions to them. Although it would be wonderful to have solid evidence to inform us about these challenges, this unfortunately has not been an area of great research to date.

Although there are a number of topics addressed in this chapter, they all ultimately relate back to the principles of policy and process. If you are the PD of a large program, it is imperative to have a consistent way of doing things and to ensure that everyone involved with your program is aware of these approaches. By putting policies and procedures in place, you will provide a clear roadmap for all involved and ensure that everyone understands what is expected of them, what their responsibilities are, and how they are to achieve their objectives.

The following are a couple of examples comparing similar situations in a smaller and larger program:

Example 1

Small program: Dr. Jones is a fourth-year resident in endocrinology. He is on the consult service with Dr. Smith. He asks Dr. Smith for two days off to attend his brother's wedding. Dr. Smith agrees but does not realize anyone else needs to be informed. Dr. Smith later sees you in the office and happens to tell you about Dr. Jones' request. While you are OK with this absence, you make sure the documentation is in place to record the absence.

Large program: Dr. Jones is a fourth-year resident in pediatrics. He is on the clinical teaching unit with Dr. Smith at the community teaching hospital. He asks Dr. Smith for two days off to attend his brother's wedding. As you work at another hospital, you don't see Dr. Smith regularly and therefore do not learn about Dr. Jones' absence. The absence is not properly recorded. Dr. Jones takes an additional two days later in the year. The other residents in the program hear about these extra days off and are not happy. They start to take similar liberties with their days off, and you are not aware that this is happening.

Example 2

Small program: Dr. Toms is a senior cardiologist and attends on the ward. There is growing concern among the residents, four in total, that Dr. Toms is not teaching the residents sufficiently and is often absent from the ward for long periods of time. When you see the residents at their academic half-day, the residents share this with you, and you follow up immediately on their concern.

Large program: Dr. Toms is a senior cardiologist and attends on the ward. There is growing concern among the residents, 50 in total, that Dr. Toms is not teaching the residents sufficiently and is often absent from the ward for long periods of time. When you see the residents at their academic half-day, they don't feel comfortable sharing this with you in such a large group, so they keep silent. You eventually review the aggregate of Dr. Tom's annual teaching reports at the end of a two-year cycle and become aware that there is a significant issue.

So, what went wrong in these examples? In fact, what happened in the small programs was no better than what happened in the large program, but there are inherently more opportunities to prevent misses in small problems simply because of their size. In a large program, it is much more important to have infrastructure in place for these sorts of situations and more.

Setting your large program up for success

As the PD of a large program, I've come to realize that there are five key ingredients that help set a program up for success: good communication, trusting relationships, clear policies and procedures, compassion and innovation. Generally speaking, if you attend to these five areas in your large program, you and your program will thrive.

1. **Communication**, in all its facets, is paramount to your success as the PD of a large program. It is not enough to just hope you will see your residents, your teaching staff and your administrative support staff on a regular basis to share your ideas, plans and concerns and hear theirs. These interactions should be deliberate and planned on your part, whether or not those around you recognize this or not. It is very easy to get caught working in your office to complete the myriad of administrative tasks for which you are responsible as the PD, but it is important to make time for everyone involved in the program. Most PDs will want to schedule regular individual meetings with their residents not only to review how they are progressing but also to have valuable dialogues with each resident about their progress and their insights and to discuss how they can best succeed moving forward. You may want to also schedule times to meet with the residents as a large group, or with particular training cohorts, to discuss broad topics and concerns and to answer the residents' questions. Similarly, you may want to schedule times to meet with groups of teaching staff, especially those you may not see regularly in your day-to-day schedule because they work in a different area of the hospital, in a different hospital or in a different town or city. Scheduling these communication opportunities gives you the chance to share what you are thinking about the program — its current successes and challenges — and ensure that your views match what the residents and teaching staff are thinking. Such discussions may inspire you to introduce innovations into your program. They will certainly demonstrate to all of your stakeholders that you are a strong leader, that they are important to you and that you are listening to them.

2. This leads to **trust**. Communication is an important step to developing trust. Trusting the educational leaders around you is critical to your success and the program's success. As the PD of a large program, it will be nearly impossible for you to do it all. You must be comfortable relying on a team of other physicians and administrators who can take the lead on a variety of activities. At different institutions, that team may be called different things. You may want to consider appointing one or more associate PDs to take the lead in specific areas of your program. Perhaps your residency program committee has strong members who can take on activities. With Competence by Design, having a strong and empowered competence committee chair can make a big difference for you and your program.[1] If your program has multiple sites, assigning site leads can be very helpful. For the people in any of these leadership positions to be successful, you need to let them "do their thing"; don't micromanage too much. By giving independence to other members of your team and showing that you trust them, you will instill a culture where both physician and support staff feel engaged and want to contribute their best to your program. As long as the communication channels remain open, you will be aware of the work they are doing and will be able to help shape that work in a way that brings everyone comfort and success. The same principle applies to your residents. Many residents feel a sense of pride and ownership in their residency program and want to bring change. By entrusting your residents with appropriate projects, you will enable them to become another integral part of the team that ensures the work gets done. In particular, it is critical to assign administrative tasks to your chief residents to further develop that level of engagement.

However, do not limit leadership opportunities only to your chiefs; there are many residents who have strengths and talents that can be used in a variety of ways in your program.

3. Communication and trust go a long way to ensuring that your program has the right **policies and procedures** in place and that as many stakeholders as possible are aware of them. Not much thought tends to be given to policies and procedures when things are going well. They become much more important when there is a problem, particularly when it involves a resident or staff member. Following policies and procedures is critical in large programs in these types of situations, as it helps to ensure that everyone is treated fairly, both in the present situation and when similar situations arise in the future.

It is important to think about how you will communicate your program's policies and procedures. Although you will have opportunities to directly share them with your program's stakeholders, they may forget them when things are going well. It can be very helpful for large programs to have a passive, easy-to-access communication channel for policies and procedures, and indeed all program messaging. If you don't have one already, definitely consider developing a website that can host your information and share it with the world. If your program already has a web presence, make sure to allocate appropriate resources to your site to ensure that the content is always up to date; you don't want residents, staff or program applicants to see a website that is a few years out of date. Good examples include AIMRS.ca (https://sites.google.com/ualberta.ca/aimrs) (University of Alberta Internal Medicine ResidentS), University of Toronto Emergency Medicine Resident Resources (http://www.deptmedicine.utoronto.ca/emergency-medicine-resident-resources (http://www.deptmedicine.utoronto.ca/emergency-medicine-resident-resources)) and the McGill University Internal Medicine Residency Program's website (https://www.mcgill.ca/internalmedres/ (https://www.mcgill.ca/internalmedres/)). Consider "pushing" certain policies and procedures to the relevant stakeholders regularly, especially when there is high turnover, for example at the beginning of the academic year.

4. Understanding and compassion. When it comes to program procedures, two additional points of advice are important. First (and perhaps it goes without saying), make sure you **hear all sides** of any "situation." If a resident issue arises, it is not uncommon for you to hear about it from a staff person first, and what is shared is usually concerning. If you neglect to take the time to hear the resident's side of the story, you might consider serious consequences for the resident that may not be warranted or appropriate. With a large program, you may not directly interact with the resident in question as often as you would if your program was small, so taking the opportunity to hear from your residents not only ensures fairness but also enables you to get to know them better. This leads to the second point. As important as policies are, equally important is **compassion**. In smaller programs, it is not unusual for residents to seek out their PD for advice not only about training but also about their personal life and how it may be affecting their work. Residents in larger programs need their PD's support as much as their counterparts in smaller programs as they deal with the challenges of life and the start of their career. This doesn't mean you should let residents progress if they are not meeting their competencies, but it does mean

you need to make decisions that take into account the unique context of the resident, their life circumstances and the relevant policy. You should work to understand a resident's concerns or challenges through their identity and experiences and hear their perspectives on an issue. If you don't know the resident well when a concern is brought up, make sure you take the time to learn about them, as it can lead to insight into why they were brought to your attention in the first place. This is one of the most difficult parts of being a PD, and it is perhaps more challenging for PDs of larger programs where it may not be possible to have the same relationship with every resident. However, it can also be very rewarding.

5. Innovation. In a large program, there are so many moving parts and so many people involved at various levels that it can seem daunting to even contemplate changing gears or introducing change, especially if the program is doing well. However, don't let that intimidate you. Many **PDs are also innovators and have many good ideas.** Remember that over time, most programs that stop innovating will stop running well, so don't be shy about introducing your ideas and trying new things. Although it may not be the best idea to make changes in your first few days on the job, it is not only appropriate but expected that you will consider change in a thoughtful and respectful way as you learn about the program. Building strong relationships with your stakeholders will pave the way for successful change.

Taking over a large program is often a major career change for PDs. You may have been involved in the program in another capacity before, or perhaps you were the PD of a smaller program. Being the PD of a large residency program will take up a lot of your day and will probably take you away from some of the responsibilities you previously held. For many, those other responsibilities may have included dedicated time for scholarly work. You should remember that being a good PD will require the skills you used in that work. For example, data collection is critical not only to track the progress of individual residents, teaching staff and administrative staff but also to tell you how your program is doing overall. It helps inform change and provides you with a better way to communicate your program's successes, challenges and change to your stakeholders. Being a PD of a large program is a wonderful **opportunity for scholarly work**, as you have many more data points at your disposal than the PDs of small programs. If used well, those data points can not only inform your program's progress but also can be shared with others across the country and around the world so that they can learn from what you are doing.

As an example to put everything together, let's examine the annual process that is the Canadian Residency Match. In a large program, you can't do it all yourself. You need to establish and follow fair, easy-to-share rules and procedures around your metrics for file review and interviews.[2] You will need a large team of staff or residents or both to interview the many candidates who will apply to your program and you need to be able to communicate to your team what qualities you are looking for in applicants. You need to trust your team to do that work well and to represent your program effectively to the applicants. You also need to communicate about your program to applicants directly; this will probably be done electronically, in advance of the interview process. When you are

done, you will have ample amounts of data that you can employ to innovate, update and improve your process for the following year, as well as to report on your experiences to other programs and PDs.

Tips

- Never underestimate the value of communication. Be deliberate about ensuring that you have an open dialogue with residents and staff.
- Large programs have large numbers of staff physicians. Use them. Develop bilateral trust to take advantage of the wisdom and expertise across your program.
- Policies and procedures are important, but they must be balanced with compassion. If you find that balance, you will succeed.
- Large programs have large amounts of data. Don't ignore your data. Take the time to use the data to innovate and improve your program; what you learn in the process may end up being helpful to other programs too.

Conclusion

In the end, make the job of being a PD your own. With strong communication and relationships, you can build trust with those around you. Communication and trust will enable you to build program infrastructure that creates a learning environment that is fair. Even though your program is large, creating a balance between the rules and compassion remains key to your work. And don't forget to be a scholar, as it will make your work that much stronger and your experience as PD — which is satisfying regardless — that much more meaningful and rewarding.

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19. Challenges for small (or very small) residency programs

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Objectives

After reading this chapter, you will be able to:

- describe the unique opportunities offered by small residency programs
- outline common challenges faced by small residency programs
- find ways to address these challenges to ensure the success of your program

Introduction

Being a program director is a wonderful adventure regardless of the size of the program. Interestingly, the tasks of program directors, residency program committee (RPC) members and competence committee members are largely the same for all sizes of programs. While it is true that running a residency program — small or large — is fulfilling, this leadership position must be nurtured and the presence of a support network is invaluable.

In the literature, a small residency program is defined as having fewer than six residents per cohort (residency year) (1), a medium-sized program has seven to 12 residents per cohort and a large program has 13 or more residents per cohort. This chapter highlights the advantages of small programs and discusses the most common challenges they face and how to mitigate them.

Advantages of small programs

There are many advantages to running a small residency program. You will appreciate these as you settle into your new role, and they will make your experience even more rewarding.

In small programs, residents can have regular contact with you and with your program's RPC members, which makes it easier to quickly create connections and a sense of belonging than in large programs. Having a small number of residents to manage will make it easier for you to schedule periodic one-on-one meetings with residents and provide more regular, personalized mentoring. By meeting with each resident regularly, you will be able to adjust their learning plan on the basis of their needs and their career goals. For example,

you may find it easier to intervene and organize rotations with tailored learning opportunities when a learner needs remedial support or instruction. In addition, it may be easier to track resident wellness and other concerns when the group is small.

In small programs, there is often great solidarity within and between cohorts, beyond the natural support among peers that is evident in all programs. Residents in small programs are inclined to want to give to the next group of residents what they themselves received when they arrived. Given how closely residents and teachers work together in small programs, there may be an increased sense of shared identity around their common goals. However, it should also be noted that smaller programs can come with challenges for minoritized or underrepresented residents, who may feel isolated and alone.

The views of some residents are less likely to go unnoticed in small programs than in large programs. The flip side of this benefit is that some residents in small programs may not be as forthright in the anonymous feedback they provide because of fears of being identified.

The strength of a program often lies in the level of interest and participation of its residents and the level of commitment of its teachers, including their motivation and desire to see their learners thrive. When the program director knows each supervisor personally and is familiar with their individual expertise, it is possible to adjust the training program to ensure that the residents' progressive acquisition of competencies and rotations is in line with their career goals. Residents' proximity to their supervisors facilitates the formation of longitudinal relationships and continuity in assessment and feedback; these in turn support coaching over time, in line with a competency-based approach.

Small programs can offer numerous and diversified clinical exposure and learning opportunities that are more than adequate to allow residents to acquire the expertise they will need in practice. As residents are often called upon first to assess patients, there may be less competition among them for access to clinical exposure.

Small programs also offer advantages from a logistical perspective. While the composition of committees and operational structure of a small program is identical to that of larger programs, smaller programs can often be more flexible and nimble because there are fewer stakeholders and they know each other well. When there are fewer people involved, communication and consultation can happen more efficiently and changes (such as curriculum changes) can be implemented more rapidly. In addition, it may be easier to mobilize your colleagues to participate in a committee, a project or an innovation when you know them well or when you see them regularly. Any adjustments that need to be made to the program can be made on a day-to-day basis and often more easily than in larger programs.

Common challenges and possible solutions

Confidentiality and anonymity

Smaller programs may find it more challenging to ensure confidentiality than larger programs, mainly because the RPC and competence committee members, teachers and residents know each other well. You will need to regularly remind everyone about the importance of maintaining confidentiality in your program and ensure there are clear mechanisms for doing so, such as having RPC members and residents sign annual confidentiality agreements and using a secure platform (hospital- or faculty-based) for confidential information or assessments (rather than email).

Regular program evaluation with input from residents is essential to support continuous quality improvement. As program director, one of your tasks is to support and nurture a culture that encourages feedback. It is important to note that it will be harder for your residents to remain anonymous when they provide feedback because they know each other and the faculty quite well. A solution to this situation might be to ask them to provide a single assessment for the group or a collective assessment written by consensus in the first person plural ("we"). This approach can also be used to assess individual rotations and teachers.

Conflicts of interest

Although close relationships among residents and teachers in a small program can be a huge asset, they can increase the risk of conflict of interest. Since smaller programs have fewer teachers, each teacher often plays multiple roles in the program. They can be supervisors, mentors, coaches and evaluators all at once, and they have to manage these different roles without allowing one to influence another.

The individual who assesses a resident's work during a rotation must be objective. In smaller programs, there may be a certain degree of complacency (because the assessor knows the resident very well), an inability to step back (because the assessor is always with them) and even a tendency to submit assessments late (because the assessor knows they will see the resident again very soon, for example during the next rotation). You as the program director may have to assess several of your residents during clinical encounters. This has the potential to create tension and affect the relationship of trust that you have established with them in your role as program director.

There are strategies to limit the risk of conflict of interest. You might consider appointing a university mentor who will not be involved in the resident assessment process. You could also create a peer support group of teachers from other programs who are not involved in the assessment process as well as a wellness committee to implement innovative support initiatives as needed.

Isolation and workload for residents

When there is only one resident in a residency program, there is a risk that the resident will feel isolated. There are fewer benchmarks and it is challenging for them to benefit from sharing tips and tricks with other residents. Recently graduated residents can provide valuable support and are often delighted to do so. They can act as mentors for learning and

career planning by sharing their experiences. Feel free to use them, as they will feel valued. In some circumstances, residents' feelings of isolation in a small program can be even more challenging if they are internationally trained or minoritized individuals who feel that their personal and professional experiences are distinct from those of others.

Residents may also feel they are responsible for providing all the services when they are the only senior resident. Fearing that they will disappoint or not be recruited to a faculty position once they have graduated, they may place too many demands on themselves in terms of their clinical workload, at the expense of protected time for learning. As program director, you need to make sure that teachers understand that residents' clinical responsibilities need to be balanced with their academic obligations and other components of their schedules. You can advocate for your residents and manage expectations on both sides.

You will also need to consider the hidden curriculum, which is everything that contributes to the resident's training and the development of their professional identity that is not explicitly mentioned in the formal program of studies and teaching. The hidden curriculum can influence the resident positively (e.g., having a role model who successfully reconciles their clinical work and family responsibilities) or negatively (e.g., having a clinician teacher who is regularly several hours behind schedule in their clinic and finishes very late) and can affect the quantity and quality of residents' work, their wellness, their attitude and their work environment.

It is important to consider all the potential consequences (positive or negative) of the hidden curriculum that you may need to proactively manage. Residents in small programs need to be particularly aware of the hidden curriculum, because the fact that they may feel unable to talk confidentially about sensitive situations with others could make them more vulnerable to certain pressures. Program directors can address issues pertaining to the hidden curriculum by fostering a sense of choice and agency for residents, encouraging role models to show vulnerability and seeking to co-design solutions and interventions with residents and other stakeholders.[1]

The multiple roles of teachers

Given that small programs have fewer residents and, in many cases, fewer teachers, than large programs, each teacher may play multiple roles in supporting program activities. As the PD of a small program, you will need to monitor and be sensitive to your team's workload. Deliberate and regular communication with your colleagues about program activities can help keep them feeling involved and engaged. Divisional or departmental meetings can be an ideal opportunity to take stock of the RPC's activities and solicit your colleagues' input and support.

Teacher motivation

A small program may sometimes not have any residents at all. This poses a number of risks, such as a loss of motivation on the part of the PD and the RPC to update the program and engage in continuous quality improvement. There may also be a lack of interest in formal or clinical teaching. It can be difficult to reactivate a program after a long period without residents. One of the solutions could be to keep the program active by actively recruiting foreign trainees. This involves working with the university and departmental leadership to develop local administrative procedures and thinking through potential funding sources. The ultimate advantages would also include creating international collaborations and diversity within the program.

Resident selection

Competition for the limited number of resident places in small programs can sometimes be intense, which can create tension among applicants and stress for the selection committee, which may have to make difficult choices. The selection criteria should be reviewed regularly to ensure that they support the recruitment of future specialists who will ensure diversity within the program and meet the needs of the population. Transparency in the selection process is essential, as is avoiding any conflict of interest. Policies and procedures should be put in place to mitigate any conflict of interest or perceived bias, such as not allowing admissions committee members to write letters of support for trainees applying to their own program.

Helping your residents with career planning is an important responsibility, and you should initiate it as soon as they begin their residency. This can help mitigate a potential source of competition arising from a perceived lack of faculty positions within the specialty. These early interventions can ensure that residents in the program work in a positive learning environment that enables all of them to thrive.

Professional boundaries

The line between the roles of program directors as confidants, friends and mentors is very fine. It is important to set appropriate expectations at the outset and to maintain the necessary boundaries, while remaining available and present for residents. Everyone must be aware of their responsibilities within the program. For example, a particular mentor may be responsible for tracking a resident’s progress, and another member of the RPC or other faculty may be designated to provide career counselling.

As program director, you must avoid any conflict of interest. While you can and must provide support to residents, you also play a key role in determining whether they have acquired the competencies required to practise their discipline as medical specialists. Other program directors in your specialty, program directors of other small programs in their organization, national networks and your postgraduate medical leadership can serve as resources in this regard.

Creative solutions for resource allocation

For most training programs, regardless of location, resource allocation is an ongoing challenge. The reasons for these challenges are context specific, and thus the solutions must also be context specific.

Administrative resources

In an environment where resources are limited, small programs are often required to share. For example, you may need to share administrative support with one or more other program directors. It will be important for you to negotiate the time that will be devoted to your program, to ensure that your program's unique tasks are adequately covered. A benefit of sharing administrative resources is that there may be synergy and efficiency in having the same individual(s) handle tasks that are very similar across programs. If the time allocated is sufficient to meet everyone's needs, sharing administrative support can be beneficial because common tools or solutions can be shared to manage sometimes-complex processes.

Financial support for residents

As program director, you will probably want to provide support to the residents in your program for academic activities (e.g., travel to international conferences) and wellness activities (e.g., team building activities). However, it may be challenging to obtain funding if you are unable to meet the minimum number of residents for a particular activity, and the cost per person may be higher. You may want to consider cost sharing with other programs. Obtaining unrestricted educational grants, seeking voluntary contributions from the members of a service or pooling the financial resources you have obtained with those obtained by other small programs will make it easier to support the initiatives you want to put in place.

During curriculum planning, for example, it is often difficult to request a teacher's services when the number of students is low. You should not hesitate to group courses in a specialty and combine them, where applicable. You can also arrange for residents to take courses offered in related programs (e.g., courses on a pathology common to two specialties, biostatistics courses, research methodology courses). If you do not have the resources on site, you can also offer residents registration for courses offered by international experts (e.g., MGH, Harvard). Consider involving residents in course committees as they can help to identify creative and innovative solutions and improve course quality.

Conclusion

The admission of a resident to a small program offers them the possibility of developing a professional identity at a very early stage through close proximity to their teachers and other role models, a sense of belonging because they have the opportunity to contribute to

many committees, and peer support because they get to know their colleagues well. They will receive exposure to a wide variety of clinical situations and opportunities for autonomy and independent decision-making.

As program director, you have a unique opportunity to encourage a sense of solidarity both among residents themselves and between residents and teachers, and to foster the sense that your program is a close-knit team. Because you know all the clinicians in your program, you can get hold of them, motivate them and involve them in actively improving the program more easily than if your program was larger. Your program's small size also means that you will be able to be more agile in managing it.

Running a small residency program can present some challenges. Issues such as maintaining boundaries, ensuring confidentiality, developing resources, raising awareness of the hidden curriculum and raising financial support require particular attention and thoughtful, creative solutions. Take a visionary approach based on best educational practices, and you will find this leadership role in medical specialist training to be extremely stimulating.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

20. The program director's role in faculty development

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Objectives

By the end of this chapter you will be able to:

- define faculty development and explain its importance in residency education
- describe the program director's role in faculty development
- describe various faculty development strategies and how these can be used as opportunities to engage faculty
- list important content areas for faculty development in residency education
- outline strategies for success

Case scenario

A young clinician in your department, just starting to supervise residents on the inpatient ward and in clinic, comes to you noticing that many trainees seem to have difficulty communicating with patients. You check back on the most recent internal program evaluation and see that 'teaching and assessing communication skills' was highlighted as an area of weakness, and multi-source feedback was recommended as a means of addressing this. The previous program director also recommended that department members attend a half-day workshop at the university on teaching and assessing communication skills, but no department member went as it conflicted with several other departmental activities. Multi-source feedback is not currently part of your program of assessment. As the program director you ask yourself 'What do the faculty teachers have to learn?' and 'How can they best learn it?'

Introduction

Faculty development is an essential element of residency education; program directors must understand its meaning, its role, and basic content areas and strategies. Postgraduate medical education is a 'unique educational environment, with its emphasis on work-based learning, clinical supervision as a predominant method of training, performance-based assessment, and the challenge of simultaneously delivering education, training and

service'.[1] Residency training occurs in an environment of complexity and shifting priorities of health care and PGME systems, and program directors must respond to these: faculty development can facilitate this response. In this chapter we define faculty development, describe the program director's role in faculty development, list content areas and faculty development strategies, outline how these can be used as opportunities to engage faculty members, and provide some tips for success.

The definition of faculty development has evolved over time from 'a broad range of activities institutions use to renew or assist teachers in their roles'[2] to initiatives designed 'to prepare institutions & faculty members for their academic roles – teaching, writing, research, administration, career management'.[3] Today the goal of faculty development 'is to teach faculty members the skills relevant to their institutional setting & faculty position & to sustain their vitality, both now & in the future'.[4] The target of faculty development now includes 'all individuals involved in education of learners across the continuum, leadership and management in the university, hospital, community, and research and scholarship across the health professions', and content and format of faculty development has become broader, including 'all activities health professionals pursue to improve their knowledge, skills and behaviors as teachers, educators, leaders, managers, researchers, scholars in both individual and group settings.'[5] This wide scope might be overwhelming to you as a new program director, so for the purposes of this chapter we describe faculty development as a range of activities to assist faculty members, in particular clinical teachers, in their academic roles, particularly as teachers and assessors. Program directors are usually not the sole faculty development 'provider', and they are not expected to be 'experts' in all content areas or faculty development strategies: program directors, like you, often work in concert with faculty development specialists in their department or university. As well, departmental teachers and clinical supervisors may participate in faculty development provided by other groups, for example the PGME offices or their specialty society.

As residency education evolves, clinical supervisors are being asked to take on new or changing roles, often in new contexts.[6] Examples of these changes include: clinical teaching in new community-based rotations, delivering on-line learning to a resident half-day, interacting with learning portfolios, becoming mentors, or participating in competence committees. Faculty members also need to learn about content areas they have not been explicitly taught (e.g. health advocacy, professionalism, communication skills), new curricular approaches (e.g. competency-based medical education, coaching) or the use of newer assessment tools (e.g. EPAs or field notes). It is also important for faculty members to be educated about larger shifts in medical education and healthcare; including, for example the field of Equity, Diversity, Inclusion and Accessibility. See Table 18.1 for a list of potential content areas for faculty development in residency education. Many faculty members feel ill-prepared for these roles and new (to them) content areas. The program director is ideally placed to evaluate what areas are needed by their own department members and what faculty development strategies are likely to be effective in their own context.

Table 18.1 Common Faculty Development Content Areas in Residency Education

Content Areas	Content Areas
Communication skills	Providing feedback
Teamwork	Small group facilitation
Leadership skills	Lecturing / interactive lecturing
Patient safety	Teaching procedural skills
Quality improvement	Reflection
Research skills	Role modeling
Critical appraisal	Coaching
Health advocacy	Using portfolios
Social accountability	Multisource feedback
Wellness	Teaching in a simulation context
Time management	Competency based medical education
Ethics	E-learning and blended learning
Equity, Diversity, Inclusion and Accessibility (EDIA)	Distributed learning

'Traditional' approaches to faculty development have often included formal group activities such as workshops, usually held away from the clinical teacher's workplace. Table 18.2A lists some of these formats. Recent reconceptualizing of faculty development proposes a move away from learning that occurs in 'discrete finite episodes' to a focus on continuous and authentic professional learning, and a move towards the notion of promoting learning that occurs in authentic contexts, Table 18.2B.[7]

Table 18.2 Faculty Development Strategies

Traditional Faculty development Strategies	Innovative, new(er) faculty development strategies
Workshops and other small group activities	Individual, informal, asynchronous, work-based
Short courses	Simulation methods, e.g. OSTEs (T=Teaching)

Traditional Faculty development Strategies	Innovative, new(er) faculty development strategies
Lectures and other didactic activities	Peer coaching, mentoring
Longitudinal programs	Work-based learning
Self-instructional modules	Learning from experience, reflection
On-line formats	Social media
Role-play	Communities of learning / practice
Video review	Learner feedback
Microteaching	"Just-in-time" resources or support

Steinert[8] has proposed a model where faculty development strategies are divided into four quadrants with axes of formal to informal, and individual to group. The program director may recognize opportunities within their own group for faculty development strategies outside the 'formal group' activities, e.g. by using resident feedback on teaching, incorporating faculty development into an existing community of practice, or learning by observing, doing and reflecting on the experience.

Whatever the faculty development format or strategy, it is likely to be more effective, and to change outcomes, if experiential learning is emphasized with opportunities for interaction, practice with feedback and application of concepts learned. Using peers as role models & collegial support, and using multiple instructional methods also increase success (YS BEME). These aspects should be incorporated in the design and delivery of all faculty development initiatives.

Faculty development can 'improve practice & manage change by enhancing organizational capacities and culture as well as individual strengths and abilities.[9] Preparing faculty is a 'necessary adjunct to facilitate the design, implementation and evaluation of new curricula'.[10] Faculty development may increase 'buy-in' or build capacity by improving knowledge or enhancing skills in a content area such that it can be better taught.[10] An approach to faculty development aimed at institutions and systems, as well as at individuals, may facilitate the adoption of a competency-based curriculum.[11] 'One of the early stages of curriculum change should be to focus on addressing the organizational culture and ensuring that there is faculty understanding of the need for change'.[10] Within a program or department, the program director can leverage faculty development to help address systems concerns or resistance to change (for example, to EDIA), promote curriculum renewal, enable innovation, empower individuals and teams, recognize and reward teaching excellence, and create new leaders.

As noted, shifts in medical education and healthcare systems are placing a greater emphasis on EDIA. Because of this, there are more demands for faculty development in providing safe healthcare and education environments in line with EDIA principles. Faculty development issues that may arise from this include: few healthcare providers with lived experience to speak to an issue (e.g., Trans or non-binary physicians), a situation where the faculty members who may need EDIA training the most do not participate, or a context where a resident may actually be the 'expert' in a particular topic.' It can be worthwhile to connect with an EDIA leader within your hospital, PGME, or Faculty to brainstorm approaches to these common issues and how your role as program director can lend power to changing attitudes that prevent EDIA-focused faculty development.

Practically, what can a busy program director do to engage faculty members in residency education and improve their skills? The program director is likely the person who will identify the learning needs and priorities. This may be done by using program QI or accreditation data, updated accreditation standards, faculty performance evaluations, or resident feedback, or concurrent with the introduction of new curricular or assessment approaches. The program director can ask 'What content area needs to be addressed?' or 'What skills needs improvement?' (see Table 18.1 for some examples). There are three elements of faculty development to be considered: the 'content' (i.e. what the learner – and sometimes the teacher – has to learn); the 'process' (i.e. how the student learns and is assessed on the content); and the faculty development formats and strategies (i.e. how to teach the teachers the content and process)[10] as shown in Figure 1. Linking this back to the case scenario, the 'content' is communication skills. These skills need to be learned by residents, and likely need to be made clear to faculty members who may have not been explicitly taught them during their own training and now have to learn to teach and assess them. The 'process' is how to teach and assess communication skills; the program director may have access to frameworks or models to assist faculty, such as the Calgary-Cambridge model or multi-source feedback forms. Finally, the program director, likely in consultation with education experts, will need to find suitable faculty development formats or strategies (see Table 18.2). For common competencies or content areas it is likely that others have developed faculty development activities – these can be modified to fit the context that suits the department. An example might be to discuss a new assessment form at a department business meeting or grand rounds.

Tips for successful faculty development for a residency program

- Identify opportunities for faculty learning.
- Determine priorities for your program based on needs.
- Don't try to do too much; one thing at a time so you don't overwhelm your colleagues
- Adopt or adapt programs: there may be no need to develop a new program if a similar one exists.

- Consider faculty development strategies other than workshops; use your workplace as a classroom; use existing division/department structures such as business meetings and grand rounds.
- Build partnerships, collaborate with others (e.g. PGME office, other program directors within your institution, or within your discipline nationally); consult education experts.
- Recognize the role of faculty development as a change agent
- Foster a community of practice with faculty colleagues, who are all learning new skills to improve residency education.
- Promote & 'market' your faculty development activities effectively.
- Make it relevant & fun.

Conclusion

In summary, the scope of faculty development is much broader than 'teaching teachers to teach', although in residency training a major focus will be improving the teaching and assessment skills of the residency program's clinical supervisors. Faculty development must address changing contexts (in health care and education), changing teacher roles and needed content areas. There is 'evidence for the effectiveness' of faculty development – innovative strategies and educationally sound formats exist & must be used. Faculty development is essential for enhancing the vitality of the institution as well as the individual and can be an agent of change. Program directors are uniquely placed to do faculty development as they are close to the needs of the program, and as they are an integral part of their division/department they are aware of the contexts of practice.

Case resolution

The program director decides to use the Calgary-Cambridge communication framework and asks for 10 minutes at an upcoming division meeting to introduce the framework and a new assessment form to her colleagues. Following the brief discussion at that meeting, there is interest in devoting a divisional rounds session to communication challenges in delivery of virtual health care. The program director takes advantage of that session to ask the speaker to address communication skills more broadly before focusing on the virtual care challenges.

Further reading

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

21. Committees

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Objectives

At the end of this chapter you will be able to:

- explain the principles of setting up a committee or task force (composition, terms of reference, good governance, etc.)
- effectively organize the workflow of a committee or task force
- describe common pitfalls that can beset committees and how to manage them

Introduction

As individuals, we have all had the opportunity to participate in committee meetings. In some cases, we have volunteered or been asked to attend and in other cases we have been mandated to attend because of a specific job or role that we held. However, only a small proportion of us have had the opportunity to chair a committee. Those who have played the role of chair quickly realize that there is a definite skill required to effectively lead a group, to keep the participants engaged, to motivate them to help and to encourage them to openly bring their voice and opinions to committee meetings.

As a program director, you will be chairing your program's residency program committee (RPC). A program cannot exist without this committee, as it is an accreditation requirement of the Royal College of Physicians and Surgeons of Canada. The function of the RPC is to "support the program director in planning, organizing, evaluating, and advancing the residency program" (program accreditation standard 1.2).[1] For more information on RPCs refer to the RPC chapter (https://pdhandbook.royalcollege.ca/residency-program-committee/) in this manual. To effectively carry out its functions, the RPC may create a number of subcommittees. These subcommittees will be under your ultimate oversight. One such subcommittee is the competence committee (CC). The CC or equivalent is "responsible for reviewing residents' readiness for increasing professional responsibility, promotion, and transition to practice" (program accreditation standard 1.2.2.5).[1] In addition, you will be a member of the postgraduate education committee which is chaired by the faculty's postgraduate dean and its role is to "facilitate the governance and oversight of all residency programs" (institution accreditation standard 1.3).[2] But your committee involvement won't stop there. As program director, you will also be a member of your national specialty committee and probably a number of other committees because of your unique leadership role.

Therefore, having a solid understanding of good committee structure and function is critical if you want to be an effective committee member and, more importantly, a good committee chair. There are several elements that are critical to the proper functioning of a committee, including terms of reference, rules of order, ongoing committee review and proper administrative support. Each of these will be described in detail.

Terms of reference

Best governance practices suggest that committees should have clear and transparent terms of reference. These describe the structure and purpose of a committee of people who are working together toward a shared goal. As such, every individual on the committee has a stake in the proper functioning of the committee and has a reason to be engaged. Several critical elements should be included in terms of reference:

- **Purpose statement**. This outlines the overall reason why the committee exists. It is meant to be fairly high level, akin to a mission statement.
- **Functions of the committee**. This section outlines the specific roles and responsibilities of the committee. It should be fairly granular and should fully outline all of the areas in which the committee will have jurisdiction.
- **Membership**. A list of required individuals needs to be specifically outlined.
    - Roles, rather than the names of individuals, should be listed (e.g., site representatives; resident representative from the Competence by Design cohort).
    - In certain cases, some members of the committee may be ex officio members. Ex officio members are members by virtue of their position. For example, the postgraduate dean is an ex officio member of each RPC in the faculty of medicine at their institution. Ex officio members are often non-voting.
    - Consideration needs to be given to whether term limits should be set for any member(s) of the committee. Term limits are not usually required on RPCs or CCs but they may be needed for some other types of committees. If term limits are imposed, the terms of reference should indicate whether terms can be renewed (e.g., individuals are appointed for a term of three years, which is renewable once). If a committee has term positions that can be renewed, it is important to clearly outline the requirements for renewal as well as the process for renewal.
    - In some cases, it may be appropriate to include a statement about whether guests may be invited to attend meetings. If this is the case, it would be prudent to specify the circumstances under which guests may attend.
    - In some circumstances, committees may explicitly note how they intend to seek and ensure diverse representation as part of their membership and composition.
- **Decision-making process**. If the committee has decision-making capability, it is essential to outline the specific process through which decisions will be made (e.g., through formal voting). With respect to voting, consideration needs to be given to whether voting will be open (e.g., show of hands) or confidential (e.g., electronic

platform) and which individuals on the committee have the right to vote. The terms of reference should also indicate whether the chair will vote in all matters or will only be required to vote in the case of a tie. Ex officio members may or may not be given the right to vote — this is up to the committee to decide. Although decision making processes may seem self-explanatory, the way that discussion occurs and the process through which decisions are made are essential to optimal committee functioning. For example, many committees may strive for consensus-based decisions, yet be uncomfortable with dissent. However, program directors are advised to reframe dissent as something constructive and important to a committee's functioning.

- **Quorum**. The terms of reference should define the number of individuals who must be present for the meeting to be called to order. If too few committee members are present, the committee will not be able to conduct its business because of a lack of adequate representation. Additionally, certain members of the committee may be required in order to meet quorum (for example, the meeting must have a resident representative in attendance).
- **Attendance rule**. If the committee is to carry out its duties effectively, it is important not only that meetings do not get cancelled but also that all members attend on a regular basis. Therefore, it is strongly suggested that the terms of reference include a statement indicating that it is expected that each member will attend a prespecified percentage of meetings annually (e.g., 75%) and that members who do not meet this target will be removed from the committee and replaced. A functional committee is a committee in which all members participate. A member who does not show up is not fulfilling their obligation to the rest of the committee and such circumstances should require further investigation and action. It is also important to note that there are equity considerations regarding what time meetings occur that may advantage or disadvantage some participants from being able to attend.
- **Frequency, timing and duration of meetings**. The terms of reference should clearly state how often meetings are to be held and any specific details about timing (e.g., second Monday of the month). Terms of reference generally do not specify the duration of meetings, as the amount of material to be covered in each meeting may vary.
- **Frequency of review of terms of reference**. It is considered best practice to specify how often all elements of the terms of reference for the committee, and any subcommittees, are to be reviewed. A good rule of thumb is to review these at least every two years. If a new committee has been set up, it is recommended to review its terms of reference after the first year.
- **Statement regarding conflict of interest**. There should be an explicit statement that directs any member with a real or perceived conflict of interest to declare this at the beginning of the meeting. It is then generally up to the chair of the committee or the committee as a whole to determine the nature of the conflict of interest, its impact on the committee's functioning and the mechanism to deal with the conflict and to then clearly document this in the meeting minutes.
- **Confidentiality statement**. In general, the minutes of RPC meetings are not confidential and should be open to review by any resident in the program or any faculty member who teaches and assesses within the program (in fact, these minutes

should be open to everyone). However, portions of the RPC meetings where resident performance are discussed as well as the proceedings of CC meetings must be kept strictly confidential, and members participating in any of these discussions should be reminded at the beginning of the discussion that they must keep all information confidential. These members should also sign a confidentiality agreement, which should be kept on file by the program.

Rules of order

If you have participated in more formal meetings, you may be familiar with Robert's rules of order.[3] Although these rules were originally devised to guide parliamentary procedure, they provide a very useful framework and etiquette for running any committee meeting. The rules ensure that everyone is heard and allow for decisions to be made without confusion. They provide guidance on how to set an agenda, including such items as a call to order, a roll call of members present, reading of the minutes of the last meeting, discussions of unfinished business and new business, and adjournment. Although some of the material included in Robert's rules of order is not directly relevant to RPC and CC meetings, the rules do provide a framework for these meetings.

The rules also describe how committee members should express themselves in the form of moving motions. Members can bring forward a motion, second a motion, debate a motion and vote on a motion. Voting can be done by voice (those in favour and those against), by roll call (each individual member is called upon to answer yes or no), by general consent (when a motion is not likely to be opposed), by division (a variation of a voice vote where members either stand or raise their hands) or by ballot (if individual votes are to be kept confidential). Although the rules go into many more details, many relating more specifically to large meetings and to parliamentary procedure, they are worth reading, particularly if you expect to chair meetings where contentious issues will be brought up and discussed.

Ongoing committee review

A weakness of many committees is the lack of a regular review of the terms of reference and of the overall functioning of the committee. The committee chair should lead a detailed review of the terms of reference at least every two years. If a committee has been newly constituted, it is prudent to review the terms of reference after the first year.

The chair should also take responsibility for conducting regular check-ins with the committee members. Informally, the chair can periodically ask the committee members what aspects of the meetings they feel are going well and what aspects could be improved. A potential drawback of this approach is that committee members may be reluctant to be completely truthful. A useful alternative approach is to send committee members a survey asking for feedback on various aspects of how the committee processes are running. As with any form of assessment, narrative feedback is ideal, so any survey should allow for, and encourage, written narrative feedback on specific aspects of the committee.

Administrative support and communication

Proper administrative support is critical if committees are to function effectively. For most residency programs, this support comes from a program administrator who is well versed in residency training and residency accreditation.

The program administrator can schedule committee meetings, ensure that meetings have quorum by asking committee members to RSVP in advance of the meeting, draft the agenda, take attendance, ensure each meeting truly has quorum, take minutes, track action items, record motions and tally the results of votes. In addition, the administrator can support the chair in ensuring that the agenda is followed, that an appropriate (not excessive) amount of time is spent on each item and that the meeting starts and ends on time. The administrator can also provide advice on rules of order.

In cases in which a trained administrator is not available to attend a meeting, you will need to either assume some of the administrator's roles or delegate them to other committee members, at the beginning of the meeting. In particular, it can be quite important to delegate a member to keep track of time to ensure that all items on the agenda get discussed and that the meeting finishes on time and to delegate someone to take minutes. Since it is critical that the chair remain engaged in running the meeting and in leading the discussion, it is important to have other members of the committee support the chair in watching the time and recording what is being discussed.

Common pitfalls and how to manage them

Even when committee members have the best of intentions, meetings can run into problems. Some of the more common issues are discussed below, with some advice on how to address them.

Members do not show up

There are few things more frustrating than showing up to chair a meeting and realizing that you don't have quorum, which means that no firm decisions can be made. This situation ends up being somewhat disrespectful of members' time, and doesn't further the mission of the committee and program. For this reason, it is critical to create an RSVP list several days before the meeting to ensure that the meeting will have the number of attendees required to make the meeting useful and productive. Although it is possible that last-minute unforeseen circumstances may prevent some members from attending, asking people to RSVP will minimize the risk of insufficient attendance at the meeting.

You may find that certain members of your committee attend infrequently. There can be a variety of reasons for their absences. Until you find out what these reasons are and address them, absenteeism will continue to be a problem. Your first course of action in such cases should be to meet with these committee members individually and ask them about their specific circumstances around meeting attendance. Once you know their specific circumstances, you may be in a position to help to address them. During this

meeting, you could explore with them whether they feel they are able to fulfill a specific role and that emphasize that their attendance is important and valued to ensure proper functioning of the committee. If they feel that they cannot commit, you may need to discuss replacing them on the committee. To ensure that expectations around attendance are clear to all committee members, you may want to consider including an attendance rule in the committee's terms of reference, as discussed above. You should also consider what time meetings are held and ensure that timing is decided upon in an inclusive way.

Members show up late

As chair, you need to set the example here: plan to arrive at each meeting a few minutes early. Stress to all members the importance of arriving promptly so that the meeting can not only start on time but also end on time. While it is acceptable to allow a few minutes for all members to arrive, you should begin the meeting no more than five minutes after the scheduled start time. If a member repeatedly arrives late, it would be important to discuss with them the expectations, and discuss their specific circumstances and see if there might be a workable solution.

Members are not prepared for meetings

Members need to be given adequate time to review materials before a meeting so that they come prepared. A good rule of thumb is to send meeting materials to committee members five to seven days in advance of the meeting.

Meetings consistently run overtime

Most committees are made up of volunteers who are dedicating their personal time to the service of the committee. It is therefore essential to respect their time by ensuring that meetings end on time. It is your role as chair to ensure that the rules of order are followed during the meeting and to allocate a specific amount of time to each topic to ensure that all topics get covered in adequate detail. If during a meeting it becomes clear that more time is required for a particular topic, you will want to decide if other agenda items can be deferred to a subsequent meeting, if the current topic needs to continue to be discussed at a subsequent meeting or if a special meeting needs to be convened to discuss the issue. Regardless of the decision that is made, every effort should be made to ensure that the meeting finishes at the predefined time.

People talk over one another, not waiting for their turn

It is not uncommon for individuals in a meeting to either talk over one another or to interject their comments before other members have had a chance to speak up. As chair it is your responsibility to role model and clearly set out the rules that are to be followed during the meeting and to ensure that these rules are adhered to. Members of the committee should be encouraged to raise their hands should they wish to speak. You or a delegate could recognize people who have raised their hands and give them the

opportunity to speak on the basis of the order in which they raised their hands. In a respectful way, you should ensure that everyone who wants to speak gets the opportunity to do so.

There is no clear follow-up of tasks

Most committee meetings are conducted with the goal of getting things done. The task list may be extensive, and tasks are often assigned to either individuals or subcommittees. It is critical that the minutes be completed in a timely fashion and that they clearly indicate what tasks need to be completed and by whom. The tasks should appear on future committee meeting agendas to ensure that the necessary follow-up is done.

The meetings are boring and nothing gets accomplished

As chair, you have the opportunity to set the tone for the meeting. This is a chance to role model your enthusiasm as this will be reflected in the conduct of the meetings, and it is very likely that the committee members with feed off this positivity. The most effective committees are the ones where things get discussed and things happen. When a meeting's sole purpose is to only deliver or share information, members become disengaged. Information can easily be shared through other forms of communication (e.g., newsletter, email), so unless information is of critical importance it is best to share it outside of committee meetings. Ideally, meetings should be goal oriented: people should leave feeling that something was accomplished and decisions were made. This is the most effective way to keep members engaged.

The chair does all of the work

A committee is made up of people who are working towards a common goal, and the opinions of all members are extremely valuable. Every member is a stakeholder in the committee's outcomes and has a role to play in ensuring that committee work get done. As such, you should seek volunteers who are motivated and can carry out critical tasks. In a situation where a volunteer doesn't come forward, you may consider delegating tasks to specific individuals on the committee.

Conclusion

If chairing and participating on committees is a newer responsibility for you, you can expect to find your first year of meetings to be full of learning opportunities. Your colleagues will be understanding and supportive, especially when you show that you're willing to learn and grow in your role. The good news is that there are members of your committee(s), including your program administrators, who are experienced and willing to share their knowledge. Observe colleagues who set up, run and participate effectively in committee meetings and model their behaviours. Be aware of the typical pitfalls and watch how others avoid or mitigate the impacts. Confidence in your role as a member or chair of a committee comes with experience — being realistic about the learning curve will help you and others enjoy the experience.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

22. Residency Program Committee

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Objectives

At the end of the chapter, you will be able to:

- develop the structure and terms of reference for your residency program committee (RPC)
- create subcommittees where appropriate and identify which situations are best managed by creating a time-limited working group or task force

Case scenario

Consider a new program director just beginning their term as a recent graduate of the same program. An accreditation review has just occurred, in which several areas for improvement (AFI) in the structure of the residency program committee (RPC) were identified. RPC meetings have always taken place as an extension of division meetings, and discussion is often rushed as people are inevitably trying to leave for home by that part of the agenda. The RPC is large, as all divisional members sit on this committee. Work to advance the program is heavily dependent on the program director, and there are no defined roles or responsibilities for individual RPC members. The previous program director still wants to be consulted before all decisions but no longer has time for RPC work. There are no defined processes to review program policies or processes, and resident selection and assessment are mostly done on an informal basis. The next accreditation review (an external review) is coming up in a couple of years. The new program director is feeling overwhelmed, having no idea where to start to improve the program.

Introduction

An effectively structured RPC is an invaluable tool to help share the work of managing your program and to ensure your training program is fully engaged in continuous quality improvement. In contrast, a poorly functioning RPC will hinder your ability to improve or even maintain your program quality. One of the most important roles a program director plays is the development and ongoing support and nurturing of the RPC and its subcommittees. An effective RPC helps ensure your program is structured in a way to share

workload, operates with a spirit of continuous quality improvement and considers impacts on all stakeholders. Effective management of the RPC requires careful consideration of what can be completed and reviewed within the RPC itself, which tasks require subcommittees and which situations may need alternate strategies such as a working group to deal with a particular problem.

Reviewing the structure of your residency program Committee

There are several key issues to consider when reviewing the structure of your RPC, including its membership and the timing and structure of its meetings. RPC meetings should not take place as an extension of regular departmental or divisional meetings. The RPC must be a stand-alone, autonomous committee. The Royal College of Physicians and Surgeons' accreditation standards require representation from key stakeholders, including major academic and clinical components and relevant learning sites (indicator 1.2.1.1).[1] It is important that all major teaching sites are able to contribute to the administration of the program and that they receive effective communication about the program. Meetings must be well organized and have clear agendas and minutes. Meetings should be scheduled well in advance, occur regularly and not be cancelled. The frequency of meetings may vary but must be sufficient to fulfill the committee's mandate (indicator 1.2.2.4).

Committee size

The size of the RPC size should be determined by considering what must be done to effectively manage your program. If the committee is too small, the individual members may be overburdened with work, which will probably lead to an overreliance on the program director. A committee that is too large can lead to disengagement, as members are unlikely to have a chance to contribute substantially. The "rule of seven" [2,3] indicates that a group of seven is optimal for group decision-making and that each person added to a group beyond seven reduces the effectiveness of decision-making by 10%. Although it is probably not possible for most programs to limit the size of their RPC to seven members, especially large entry-level programs, the concept speaks to the need to keep committees as small as is reasonable, within the guidelines for membership. This concept also speaks to the fact that many tasks may be better completed by subcommittees or working groups. To keep your committee an appropriate size, it is important that your terms of reference clearly identify individual members with meaningful and well-defined roles.

Membership

By carefully structuring your RPC membership you can help ensure that it benefits from diverse representation and perspectives beyond the needs of your academic centre. For example, if your residents rotate through a community site, the site director should sit on your RPC. Having the research director sit on the RPC will help to facilitate the scholarly or research components of your program. Accreditation standards require that individuals involved in resident wellness and safety have the ability to provide input to the RPC (indicator 1.2.1.3).[1] This can be achieved by adding a wellness or safety director to the RPC

or calling on existing RPC members to provide reports on these issues. In some programs, the RPC may benefit from representation from other health professionals or disciplines. For example, a surgical program may benefit from having Anesthesiology or Nursing representatives on its RPC; a Radiation Oncology program may choose to have representation from Medical Oncology or related professions like Medical Physics. Last, effective committees include members with various diverse backgrounds, such as identity or lived experiences (e.g. BIPOC, women, physicians with disabilities) or job type (e.g. academic vs non-academic). Perspectives of these individuals are key, and their participation should not be viewed as a check-box for EDI; program indicators related to EDI are more reflective of whether EDI concepts are being adequately incorporated into the program at the direction of the RPC.

Another challenge in structuring RPC membership is whether to include RPC members by virtue of other positions they may hold. Such members are referred to as ex officio members. They may include department chairs, division chairs, the associate dean, program directors from allied programs or faculty members who hold key clinical, administration or research positions. Often it can be helpful to include ex officio members to ensure diverse representation on the RPC and to aid with communication between the program and key stakeholders. Be mindful of the committee becoming too large or of adding members who may not be truly interested in the residency program. You could consider adding such individuals as corresponding (nonvoting) members or hosting them periodically as guests. For instance, some faculty members may have a special interest or responsibility related to a particular educational experience, rotation or curricular element; in these cases, you may wish to invite that faculty member to attend meetings when relevant issues are being discussed, without having them on the RPC as a full member.

Finally, resident engagement in the RPC is an absolute requirement; your residents are the end users of the program and will know the program's strengths and weaknesses better than anyone. Accreditation standards indicate there must be "an effective, fair, and transparent process for residents to select their representatives on the residency program committee" (indicator 1.2.1.2).[1] For many programs, this means the chief resident(s) plus one or two more (depending on the size of the program) selected or elected representatives. In addition to the chief resident, additional residents must be elected by their peers and this process must be arms length from the program leadership. The number of resident representatives will vary according to the size of the program. Additional resident representatives could be determined by year, stage of training or site or to represent certain issues such as research, quality improvement, EDI or wellness. The mechanism by which residents are chosen needs to be clear so that you can demonstrate compliance with this requirement during accreditation reviews. The terms of reference should also outline the expectations of the resident members and give residents an explicit voice on the committee. The RPC should always consider feedback from the resident body on all changes and initiatives that are being discussed, and the agenda for RPC meetings should include standing reports from residents to give voice to issues and concerns that arise. Needless to say, resident members on the RPC should be full voting members, with a voice equal to that of faculty members, and should be given the respect of peers.

A common challenge is to find a way to engage faculty members who want to contribute to residency training without necessarily adding them to the RPC. Some faculty members may have been on the RPC in the past; others may wish to be added. This enthusiasm can be at odds with the desire to maintain an efficient RPC. For example, a RPC that has historically been large and inefficient may benefit from having its roles redefined and its membership reduced. This may require some members to leave the RPC. This must be handled tactfully and respectfully, to maintain enthusiasm for the program and avoid offending those who are leaving. Thank you letters (which can be included in a teaching dossier), a gift or a gathering to celebrate the contributions of departing members can be effective ways to show respect and appreciation. You may also choose to ask faculty members important to the functioning of your program to join RPC subcommittees or to fill academic advisor or other mentorship roles.

Quorum

Quorum (usually 50% plus one) should be achieved for all meetings and an explicit agenda set in advance. Attendance records should be kept, and members should be expected to attend all meetings unless regrets have been sent. An appropriately small RPC cannot afford to carry committee members who frequently miss meetings or do not contribute to the work of managing the program. Term limits are one way to ensure periodic turnover of members.

Terms of reference

In accordance with Robert's Rules of Order,[4] the RPC should be a "deliberative assembly" with well-defined terms of reference. This is an accreditation standard, in that each RPC must have terms of reference that are clearly written and provide a detailed description of the composition of the committee and the roles and responsibilities of each member (indicator 1.2.2.1).[1] Training programs evolve constantly, and the terms of reference should be reviewed regularly to ensure the RPC continues to meet the needs of its residents, department, community, university and the Royal College. Review of the terms of reference can be a standing item done at the beginning or end of each academic year.

When writing or revising your terms of reference, ensure the document is clear and concise. Most postgraduate medical education offices will have a template you can use as a starting point. Several templates are also available online, including some recommended in the further reading below. It can be helpful to look to similar programs at your university or nationally for ideas. The terms of reference ideally will include the following information:

- The committee's mandate and the overall goals of the training program
- The frequency of RPC meetings
- The committee's membership — The terms of reference should specify who is on the committee, the duration of each member's term and whether the term is renewable.
- Quorum — This can vary, but quorum is typically 50% plus one.
- Reporting relationship and subcommittees — The terms of reference should indicate which committees report to RPC, the reporting relationship, the person or body to

whom the RPC is accountable and the way in which the committee reports to that person or body (e.g., the person or people to whom minutes are distributed).
- Committee responsibilities — This may include overseeing resident assessment and selection, the continuous quality improvement process and the annual program review (what is reviewed and when).
- Responsibilities of individual committee members — It can help to be as specific as possible in defining the responsibilities for accountability purposes and to help describe what type of commitment is involved when recruiting new members.
- Decision-making structure — Decisions are often made by majority vote; however, in certain situations other methods may be more appropriate. For example, for EDI issues, minority viewpoints or suggestions may be better served using other decision-making structures, such as consensus decision-making that aims to have agreement with all members. It may be pertinent to develop an explicit way to identify what decisions may be better served by a decision-making process other than majority vote.

Subcommittees

"Which subcommittees are necessary and when is a subcommittee not required?"

Accreditation standards indicate that "the mandate of the residency program committee includes planning and organizing the residency program, including selection of residents, educational design, policy and process development, safety, resident wellness, assessment of resident progress and continuous improvement" (indicator 1.2.2.3).[1] Practically speaking, the scope of this work is beyond what can be accomplished in most regular RPC meetings or by RPC members alone.

The creation of subcommittees is an essential tool to share this work. Common subcommittees employed in successful programs include resident selection, research/scholarship, quality improvement, curriculum, simulation, EDI and wellness. The need for specific subcommittees will vary from program to program, depending on the structure of the RPC and the setting. All programs **must** have a competence committee (or equivalent), which is "responsible for reviewing residents' readiness for increasing professional responsibility, promotion, and transition to practice" (indicator 1.2.2.5).[1] Most programs have a resident selection committee, although this task can be completed by the RPC or a time-limited working group struck during the selection period.

When a standing subcommittee is mounted, the same principles used for the RPC apply: the subcommittee needs to have clear Terms of reference, a clear chair (or lead) and clear membership responsibilities. Subcommittees **must** report to the RPC, as the RPC carries the ultimate responsibility for oversight of the residency program. However, the interaction

between subcommittees may vary depending on the local context. For example, an EDI subcommittee may provide some oversight or recommendations to other subcommittees, while still being accountable to the RPC.

A subcommittee can be time and human resource intensive. Particularly in smaller programs, there may not be enough individual faculty members to fill a subcommittee. Before establishing a new standing subcommittee, you first should consider whether a less intensive ad hoc working group could be created instead. For recurring tasks, such as those occurring regularly during the academic year cycle, a standing committee is sensible. For time-limited initiatives, you could consider a working group or task force.

Faculty members may be more willing to join a task force struck for a specific purpose. The nature of a task force implies that it dissolves once its purpose has been fulfilled. Working groups or task forces can be used to introduce new curricular requirements, to address areas for improvement identified in internal reviews or Royal College accreditation reviews or to lead a specific quality improvement initiative. Diverting this work away from the RPC will save precious time in your RPC meetings, while RPC oversight is ensured by having the subcommittee or task force report to the RPC

Tips

- **Right size your RPC.** The terms of reference should list well-defined roles and responsibilities for individual committee members. This will help committee members understand how they should contribute and will help with recruitment of new members.
- **True resident engagement in your RPC is a must.** This can be facilitated by including resident reports on meeting agendas and asking residents to be involved in or lead quality improvement initiatives for the program.
- **Use your RPC to tackle tough issues.** Directing a controversial issue to the RPC allows you to consider the views of multiple stakeholders, gain consensus, communicate decisions and avoid the perception that you alone may be to blame for an unpopular decision.
- **The RPC can’t do it all.** Structure appropriate subcommittees that report to the RPC, but also consider a time-limited task force or working group to deal with an issue that does not require a standing subcommittee.
- **The RPC oversees quality improvement but can always use some itself.** Consider conducting regular reviews of the RPC’s effectiveness. This can be done using an anonymized electronic survey and can include questions about optimal meeting frequency, duration of meetings, optimal forms of communication and other items specific to the functioning of your committee.

Challenges

- **The RPC is unwieldy.** Committees often tend to be too large; as above, well-defined terms of reference can help.
- **"This is the way it has always been."** Historic roles and patterns may no longer be needed. This issue can be addressed with periodic quality improvement of the RPC itself.
- **Some committee members are not contributing.** Find a way to remove committee members without clear roles or who frequently miss meetings; it can be difficult to do this in a respectful way.
- **The RPC is too busy.** Effective subcommittees can help distribute the work, keeping RPC meetings more focused (with the RPC still informed via regular reporting and providing oversight).

Conclusion

A thoughtfully designed, diverse RPC that meets the standards outlined by the Royal College will set you up for success in your role as program director. This committee will be the backbone of decision-making for your program, the place where everything comes together to ensure you have a high-functioning program that listens and responds to feedback and ensures continuous quality improvement at all levels.

Further reading

- Axtell P. The most productive meetings have fewer than 8 people. *Harv Bus Rev*. 22 Jun. 2018. Available from: https://hbr.org/2018/06/the-most-productive-meetings-have-fewer-than-8-people (https://hbr.org/2018/06/the-most-productive-meetings-have-fewer-than-8-people)*This outlines the pitfalls of having a meeting that is too large and outlines considerations in deciding whom to invite to meetings.*
- Rady Faculty of Health Sciences. Example RPC terms of reference. Winnipeg: University of Manitoba; 2019. Available from: https://umanitoba.ca/faculties/health_sciences/medicine/education/pgme/media/EXAMPLE_RPC_TERMS_OF_REFERENCE2019.pdf (https://umanitoba.ca/faculties/health_sciences/medicine/education/pgme/media/EXAMPLE_RPC_TERMS_OF_REFERENCE2019.pdf) *This sample RPC terms of reference document from the University of Manitoba PGME office provides a detailed outline of the roles and responsibilities of an RPC.*
- Knowledge at Wharton Staff. Is your team too big? Too small? What's the right number? *Knowledge at Wharton* 2006 Jun. 14. Available from: https://knowledge.wharton.upenn.edu/article/is-your-team-too-big-too-small-whats-the-right-number-2/ (https://knowledge.wharton.upenn.edu/article/is-your-team-too-big-too-small-whats-the-right-number-2/)*This article outlines principles behind identifying an appropriate size for a productive team.*

- Grigsby RK. Committee, task force, team: What's the difference? Why does it matter? *Acad Physician Sci*. 2008 Jan.;4–5.Available from: https://www.aamc.org/media/21586/download (https://www.aamc.org/media/21586/download)*This article provides a brief description of the difference between committees, task forces and teams, including benefits of each approach and examples.*

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

23. Understanding Competence Committees

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Objectives

At the end of this chapter you will be able to:

- explain the role and purpose of the competence committee
- explain the role of the program director as it relates to the competence committee
- describe the organization and processes of an effective competence committee
- recognize and mitigate challenges in decision-making for summative assessment

Introduction

In Competence by Design (CBD), outcomes of training and processes for assessing performance have been defined for each discipline.[1,2] To evaluate individual learners' progress in achieving these outcomes, programs must collect a large number of assessment data points from multiple sources.[3] These data must then be synthesized and interpreted to inform decisions about learner progress and promotion.

Research suggests that a group decision-making process leads to better judgments.[4,5] Accordingly, CBD introduced the important concept of a *competence committee (CC) — a group of educators who review and discuss data integrated from a variety of sources and observations to make informed and transparent decisions about a learner's performance as well as their progression toward competence*. A subcommittee of the residency program committee (RPC), the competence committee has the goal of ensuring that all learners achieve the training outcomes of the discipline.

The competence committee is a key element of a program's system of assessment, and it is crucial to your work as program director in monitoring the progress of each of your residents. In CBD, promotion decisions are made by the competence committee away from the individual supervisor–learner interactions. By shifting these summative discussions to the competence committee, CBD enables interactions between front-line supervisors and individual residents to focus on formative assessment through coaching and feedback to enhance resident performance.

Through a process of regular systematic review of quantitative and qualitative assessment data, and guided by the national specialty competency framework, competence committees track the progress of each resident and identify patterns of performance that inform judgments of competence. The competence committee makes recommendations related to:

- individual learning plans to address areas for improvement (e.g., modified rotations, specific readings, clinical coaching),
- achievement of entrustable professional activities (EPAs),
- the status of the learner's progress (e.g., progressing as expected),
- promotion to the next stage of training,
- readiness to challenge the Royal College examination and
- readiness for independent practice.

There is no single way to set up and run a competence committee. Programs and institutions have different contexts and cultures, which means there is no one-size-fits-all approach. As a program director, you will be asked to help lead the process to ensure proper functioning of the committee and its members. You will work closely with the competence committee chair to do this work. The following sections outline some guiding principles and best practices to help you to establish and maintain your competence committee.

The role of the program director in the competence committee

If your program does not yet have a competence committee, you will play a critical role in establishing it. The first task is to select the competence committee chair (you will be a member of the competence committee but in most cases you should assign the chair position to someone else). It is important to choose your competence committee chair carefully, as this person will hold a leadership position that can bring great value to your program if they do the job well: in addition to overseeing periodic reviews of residents, they can identify faculty development needs pertaining to assessment and can contribute information to ongoing program evaluation. Together with the competence committee chair, you will select committee members, design competence committee processes and workflows and lead faculty development. When the competence committee is up and running, you will be there, as a member of the committee, to advocate for residents and provide context to resident data where appropriate. Given your intimate knowledge and understanding of the workings of the program, you will be able to help to clarify issues related to curriculum and culture and to champion quality improvement initiatives with your CBD lead and competence committee chair.

Terms of reference and processes and procedures

New competence committees should begin their work by developing their terms of reference (TOR) and processes and procedures (P&P), which will outline the *who, what, where, when, why* and *how* of the committee. As program director, you will be very involved in these tasks. Developing these important documents will create a shared mental model among team members of the committee's purpose, practices and decision-making process.[6,7] Clear and detailed TOR and P&P create transparency and serve as a reference point for ongoing development of faculty, residents and the committee itself.[8] Given that competence committees are a relatively new concept, these documents should be widely shared among all program stakeholders. Residents, in particular, are keen to understand the competence committee's processes. It's important to cover the concepts in resident orientation sessions and throughout their training.

> ***Tip:*** The Royal College and many university postgraduate medical education offices have created guidelines for terms of reference (https://www.royalcollege.ca/rcsite/documents/cbd/competence-committees-guidelines-for-terms-of-reference-e) and a framework for processes and procedures in decision-making. (https://www.royalcollege.ca/rcsite/documents/cbd/competence-committees-process-procedures-e)

Membership

Whether you are recruiting a complete slate of members for your program's first competence committee or selecting candidates to replace departing members from an existing CC, consider what mix of people will give your competence committee broad expertise.[5,9] You will probably achieve the breadth of expertise you need by selecting a combination of individuals from your training sites who can contribute diverse opinions, skills and experiences to committee decision-making. Faculty with lived experience and expertise in equity, diversity and inclusion (EDI) are crucial to provide this perspective on a competence committee. You may also consider inviting a resident representative, a faculty member from outside your program or a member of the public (e.g. a member of a local Indigenous community or organization that your program interfaces with) to sit on your competence committee to contribute different perspectives. The size of the committee should reflect the number of residents in the program, with a minimum size of 3 members for smaller programs. Committee members are expected to give of their time and energy outside of meetings (e.g., to review resident data). Therefore, the members' statement of work in the TOR should outline these expectations and state what supports are available including consideration for remuneration, especially for community members.

New members to the committee may feel overwhelmed in their new role. To ensure that your competence committee works effectively, make sure that new members are onboarded. Faculty development initiatives should orient new members to the role and

purpose of the competence committee as well as the processes and procedures for data review, meetings and group decision-making.

Tip: Set term limits or rotate competence committee members through different positions on the committee, rather than having competence committee members stay in their roles for a long time. Changing things up can create a pipeline for new opinions and mitigate unconscious biases in decision-makingg.[10,11]

Meetings of the competence committee

Before the meeting

Scheduling meetings

Your office will play an integral role in implementing the processes of the competence committee. To ensure that residents each have an equal opportunity for timely periodic progress updates, each learner should be reviewed at least biannually. Depending on how the committee functions to meet this goal, meetings may need to be scheduled quarterly, or even monthly if you have a larger program.[12] It is important to consider the timing of meetings relative to the timing of regularly scheduled specific summative assessments (e.g., in-training examinations) and stage promotions to ensure that the necessary data are available to make progress decisions. Reviewing the curriculum map annually can provide an overview of all of the assessment data that are routinely collected and can help you to schedule competence committee meetings at opportune times throughout the academic year.[13]

Tip: Recommendations made by the competence committee must be ratified by the RPC. Therefore, it is important to schedule competence committee meetings shortly before an upcoming RPC meeting to ensure that residents are informed of the competence committee's decisions in a timely manner.

Setting the agenda

The competence committee meeting agenda should outline which residents are to be reviewed at the meeting and their assigned primary reviewer. A trainee may be selected for competence committee review on the basis of any of the following criteria:

- is it the trainee's turn for a regularly timed review,
- a concern has been flagged on 1 or more of the trainee's completed assessments,
- there is a requirement to assess the trainee's completion of stage requirements and eligibility for promotion or completion of training,
- there is a requirement to determine the trainee's readiness for the Royal College exam,

- there appears to be a significant delay in the trainee's progress or academic performance or
- there appears to be a significant acceleration in the trainee's progress.

When setting the agenda, allow sufficient time to address the most critical items, such as stage promotions and any flagged concerns. Once the agenda items have been determined and a time allotment has been assigned to each one, think about how to order the agenda so that the meeting has a logical flow from one item to the next. Consider rotating between reviewers to keep members actively engaged in the discussions. Many competence committees also use their meeting time to engage in program enhancement activities, including member faculty development as well as evaluation and optimization of the competence committee's processes and practices.

> **Tip:** Build a time buffer into the agenda in case the meeting runs long and to provide the opportunity to incorporate member faculty development or committee debriefing.

Assigning primary reviews

Each trainee scheduled for review at a competence committee meeting should be assigned to a designated primary reviewer. The primary reviewer is responsible for completing a detailed review of the progress of their assigned trainee(s) on the basis of evidence from completed observations and other assessments and data included in their academic portfolio.[14,15] The primary reviewer considers the trainee's recent progress relative to the national specialty competency framework and identifies patterns of performance from quantitative and qualitative workplace assessment data as well as any other valid sources of data (e.g., performance on in-training examinations, objective structured clinical examinations).

> **Tip:** In advance of the meeting, forward to the competence committee a summary of the findings from the primary reviewer to give the other committee members time to review the data. This invites deeper discussions at the meeting.

Collating data

To improve the quality of decision-making at competence committee meetings, all assessment data points need to be collected and collated in a way that facilitates review and synthesis. Given the finite time and resources of the committee members, not all data points can be reviewed during a meeting; ask the committee to decide what data are most valuable to them.

Electronic portfolios and dashboards are useful tools that house data for easy reference during meetings and facilitate visualization of trends over time. Collaborate with your postgraduate medical education office, your program administrator and your faculty and residents to ensure that everyone builds a strong working knowledge of your portfolio's capabilities.[16] Pay special attention to ensuring that resident assessment data are stored and shared securely in compliance with the standard practices and regulations of your educational institution.

Dashboards have other uses beyond providing benchmark data and options for data visualization that can inform resident progress decisions. They can also enable you and your competence committee to identify gaps in training experiences and facilitate continuous quality improvement for all teaching activities through periodic review of your program's assessment data.

> **Tip:** Competence committees should work with their postgraduate medical education office and/or their electronic portfolio vendor to optimize the function and capabilities of their dashboard to meet their specific needs for data aggregation and visualization (e.g., ability to filter by a specific contextual variable).

During the meeting

Facilitating the meeting

The competence committee will be responsible for the logistics of the meeting and facilitating the discussion to ensure that all items on the agenda are addressed. This is an important role, and it requires the chair to have strong facilitation skills to ensure that all voices are heard. The chair should urge members to use a structured approach, outlined in the P&P document, as they share information and should ensure that all members are actively contributing to the discussion.[10]

During the meeting, the chair should closely monitor and address any group dynamics that may hinder teamwork or bias decisions. Some bias may be related to process and team functioning, such as dominant voices, groupthink, or anchoring bias.[11] However, also it is important to also recognize forms of discrimination against residents. Implicit in discussions on competence are 'code words' that can signal bias against a resident's performance – e.g. an IMG may be scrutinized differently than a CMG due to unfounded assumptions about their previous training. Being able to recognize these patterns in assessment and during discussion is crucial to equitably evaluate a resident, and faculty with EDI expertise on a competence committee may help with this challenge.

> **Tip:** The competence committee chair should explicitly verbally review elements of decorum such as confidentiality at the outset of every meeting.

Tip: It is helpful for all members to be familiar with and attentive to the various cognitive demands and biases that may challenge competence committees so that they can effectively mitigate them. Dickey and colleagues have written a paper on this subject that may be a helpful resource.[11]

Making decisions

A hallmark of high-performing organizations is their ability to make quality decisions through structured group processes.[17] The most important step in the competence committee decision-making process is to clearly define roles and responsibilities.[17] Committees need to identify how information will be presented, who will make the initial recommendation, how input will be sought from other members, how a final decision will be made and who will be accountable for follow-through. The functioning and practices of the competence committee, including its decision-making processes, will be a specific focus of accreditation reviews in the future.

There are a number of approaches the competence committee might use to clarify its decision-making process. Here is an example of a clearly articulated process:

- Each trainee is considered in turn, with the primary reviewer presenting their synthesis of the data, displaying relevant reports from the portfolio and sharing exemplar quotes from any observational comments about the trainee.
- The primary reviewer concludes by proposing a status for the trainee going forward in the program.
- If the recommendation proposed by the primary reviewer is seconded by another committee member, all members are invited to discuss the motion.
- During the discussion and where appropriate, the program director may share information about the resident to provide context to the data. This information may be particularly helpful when the competence committee is developing recommendations regarding the resident's learning plan.
- Following the discussion, the chair will call a vote on the recommendation proposed by the primary reviewer.
- If the recommendation of the primary reviewer is not seconded or the motion does not achieve a majority of votes, the chair will then request an alternative motion regarding the trainee.
- This will continue until a majority of competence committee members support a status motion.

Tip: Decisions made by the competence committee should be transparent and defensible. Competence committees may consider having a faculty member external to their program sit in on their competence committee meeting to audit and offer feedback to the committee in the spirit of quality improvement.

Documenting decisions

During the meeting, someone will need to capture the key findings and the decisions that result from the discussions. The rationale for any recommendations made by the competence committee must be clearly documented and will be an area of attention in future accreditation reviews. Documenting key decisions and the rationale for these recommendations contributes to transparency and ensures that any outcomes that lead to changes in training experiences or learning progress are defensible.

After the meeting

As soon as possible after the competence committee makes a decision about a resident and the decision is ratified by the RPC, you, the resident's academic advisor or an appropriate delegate should discuss the recommendation of the competence committee with the trainee. Programs may take slightly different approaches to competence committee follow-up. Whatever approach your program uses, make sure to establish how information will be relayed to residents and within what time frame, and then communicate these details clearly to your residents. Informing the resident of the rationale for the recommendation will facilitate the co-development of a learning plan that is feasible, achievable and more acceptable to them. It is important that the discussion with the resident includes a comprehensive review of all of their assessment data and a mutually developed learning plan for continued growth and acquisition of competencies. Programs need to have an appeals mechanism in place for situations in which a resident does not agree with the decision of the competence committee. This process should conform with your local institutional policies and will involve communication with the postgraduate dean.

Conclusion

Competence committees play a critical role in CBD by supporting individuals' paths toward competence. They can fulfill their mandate of making transparent and defensible resident progress and promotion decisions by incorporating standardized procedures and being mindful to mitigate potential bias in group decision-making. As program director and a member of the competence committee you will work closely with the competence committee chair to establish these processes, contribute to member faculty development and engage in program enhancement activities.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

24. Role modelling in residency education

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Objectives

At the end of this chapter you will be able to:

- explain the importance of role modelling in residency education
- describe the characteristics of effective role modelling
- identify strategies to enhance role modelling in your residency program

Introduction

Role modelling has been shown to be one of the most important ways in which residents learn from their supervisors and teach students. Helping clinical teachers and residents to role model effectively, guiding residents to optimize their learning from role models and being a strong positive role model yourself are critical to creating learning environments in which residents and residency programs can thrive. Conversely, role modeling can perpetuate harm to vulnerable medical learners, patients, and communities, often through implicit norms of the "hidden curriculum". Reflection with residents on role-modelling must be sensitive to inclusive ways of being and celebrate the value that diverse individuals bring to the profession. Many program directors feel they don't have a good understanding of role modelling and aren't sure how to support and promote it and how to do it explicitly themselves. This chapter explores what role modelling is, what its impacts are on residents and residency education, what effective role modelling looks like and how you can make explicit, positive role modelling central in your own program.

Understanding role modelling and why it's important to residency training

When thinking about role modelling, we tend to imagine people who demonstrate the highest standards of excellence and whom we have aspired or perhaps still aspire to be. In reality, role modelling is simply a process (or teaching strategy) whereby a learner is taught something through demonstration.[1] In other words, it is *teaching by showing.* When understood in this way, it is easy to see how program directors, clinical teachers and residents are role modelling all of the time. But why is it so important?

Much of its importance comes from the significant role that it plays in the formation of a resident's professional identity. Professional identity formation is a developmental process that occurs throughout one's training (and perhaps one's entire career) where a resident learns to think, act and feel like a specialist or subspecialist by internalizing the knowledge, skills, attitudes, values and norms of that specialty or subspecialty.[2,3]

Role modelling is essential to this process and appears to influence it in two very important ways. First, learners will consciously and deliberately learn knowledge and skills (e.g., taking a history) by observing, reflecting on, imitating and practising what their role models have shown them.[4] This has a significant influence on the development of competence and confidence, which are central to professional identity. Second, learners tend to pattern their professional behaviours and attitudes on those of their role models, as they wish to be seen as a colleague or member of the specialty or subspecialty, which will enable them to more fully participate in the community in which they are training. These attitudes and professional behaviours can be either positive (e.g., being available to support a colleague in need) or negative (e.g., belittling the decisions of colleagues). They are also largely demonstrated and learned in an implicit or unconscious fashion, thereby contributing to the *hidden curriculum* (i.e., implicit sociocultural norms that residents are taught, often centered on a dominant culture) and resultant learning environments of residency programs.[5]

As a program director, you are responsible not only for the residents in your program, but you are also a key player in influencing the environments in which they learn. Being aware of the importance of role modelling is a critical first step in meeting that responsibility. The next section of this chapter will discuss how that awareness can be used to enhance the effectiveness of teaching and learning through modelling.

Making role modelling more effective

As described above, role modelling is a *process.* As with any process, it can be helpful to break it down into its component parts. Role modelling begins with what has been described as the exposure phase.[6] Put simply, this is the phase in which the attitudes, values and behaviours of the model are observed by the learner. The learner then enters what has been described as the evolution phase[6] whereby they must pass judgment on what they have seen, make sense of it, experiment with it, adapt it to their own style and ultimately decide if they will adopt it.[6] To make the role modelling that occurs in your program more effective you will need to create an environment where the evolution phase can be more consciously and explicitly supported, while simultaneously communicating the need for critical reflection. How can you do that?

There is no arguing that implicit role modelling is essential and important. However, people who are recognized by learners and their peers as exceptional role models seem to have the unique ability to make their modelling more explicit when it is appropriate to do so.[7] Here's how they do it: [8,9]

- **They are aware** that they are always role modelling for the people around them. This also applies to residents who are regularly serving as role models for more junior learners.
- **They demonstrate positive professional behaviours** that are aligned with the values of the specialty or subspecialty, the department and the program.
- **They help learners focus** on what they are demonstrating.
- **They engage learners in reflection** on what they have observed. This includes asking them their opinion, reinforcing important points and checking what they have taken away from the experience.
- **They observe learners** put into practice the things they have seen and provide them with **clear feedback** on those observations.

Each of the actions apply to all role models, whether they are modelling for one learner or several. Helping teachers in your program incorporate some of these strategies into their role modelling will enhance the impact of positive role modelling in your program. The next section of this chapter offers tips on how to do just that.

Fostering a culture of conscious, explicit, and reflective role modelling

If you want to maximize the impact of positive role modelling in your program, being aware yourself of its importance and influence and being explicit about your own role modelling is an excellent start. However, to foster a culture of conscious, explicit, and reflective role modelling throughout your program you may want to also consider the following tips:

- **Be aware of the values of your program and state them explicitly.** Your specialty or subspecialty, department and program should have a clear sense of the physicians you want your residents to become and the values you want to instill in them during their training. If you do not already have guiding principles and values, this is a key exercise for your residency program committee to undertake. Once you and your residency program committee have identified these values, make them explicit, demonstrate them and encourage everyone in your program to do so as well. This will help to “un-hide” the hidden curriculum.
- **Be approachable with your residents and be aware of the influence you have on them as a role model.** Your residents are watching you, their program director. What you say and do (as well as what you don’t say or do) will provide them with formal and informal guidance on what is expected of them, what is valued and how to respond to various clinical and non-clinical situations that arise. Be approachable, so that they will be comfortable coming to you when they are faced with challenges. Tough situations are ideal times to model the values and behaviours you hope to instill in them.
- **Model and promote self-reflection.** Residents may witness role modelling that perpetuates harm for medical learners, patients, and communities. Demonstrate a willingness to listen to residents who may be impacted by negative role modelling,

and reflect on how you may educate yourself and others on how to contribute to a safer learning environment.

- **Incorporate role modelling into your academic half-day.** Residents need to learn how to role model for their students and junior colleagues as well as how to learn from their own role models. This training should involve some background information on the importance of role modelling and strategies for making it effective (as described above), and it should also provide them an opportunity to practise. The Royal College of Physicians and Surgeons of Canada has a free resource entitled "Resident as role model: Capitalizing on a powerful opportunity,"[10] to help support you in implementing this type of training into your academic half-day.
- **Incorporate role modelling into faculty development initiatives.** Collaborate with the faculty development office at your institution to offer training to your clinical teachers on how to be more explicit and reflective in their role modelling.
- **Engage faculty in the direct observation of resident role modelling.** Supervisors often witness interactions between residents and students in which role modelling occurs (e.g., patient rounds). Taking the opportunity to deliberately observe those interactions and provide residents with feedback on their modelling can be of great value. A tool to help support these observations (the Direct Observation of Resident Role Modelling rubric) is included in the role modelling resource from the Royal College described above.[10]
- **Include role modelling on resident and faculty teaching evaluations.** Most universities have systems whereby residents can provide feedback on the teaching of their supervisors and students can provide feedback on the teaching of residents. Include questions about role modelling on these evaluations (e.g., Do they demonstrate positive professional behaviours? Do they encourage you to reflect on the clinical interactions they model?). These evaluations can serve as useful triggers for discussion at semi-annual meetings with residents and at annual report discussions with department or division chairs.
- **Acknowledge and reward positive role modelling.** Whether it be through emails or through an award offered by your local program, shining a light on faculty members and residents who serve as excellent positive role models highlights the importance of role modelling in your program.
- **Assist in finding physician or interprofessional role models from a resident's own community.** Beyond mentorship, residents typically seek out and learn from physicians who are part of one or more of their own communities (e.g. gender, sexuality, religion, 'race', disability, etc.). Offering to use your networks to make these connections, especially when a resident may not otherwise be exposed to someone like them at your institution, can be invaluable for a resident to share their experiences with.

Conclusion

Role modelling is one of the most important ways in which residents learn from their supervisors and teach students and junior colleagues. It plays a critical role in the professional identity formation of residents and in the hidden curriculum that shapes their

learning environments. Although much of role modelling is implicit, one of your fundamental jobs as a program director is to help your residents and faculty to recognize how they have been influenced by their own role models, both positively and negatively, and to give them the reflective tools they need to become better role models themselves. By investing in this work, you'll shape the environments in which residents work and learn and the professional identities they form for the better.

Further reading

www.royalcollege.ca/rcsite/canmeds/resident-role-modelling-e (http://www.royalcollege.ca/rcsite/canmeds/resident-role-modelling-e)

- This website contains all the materials needed to incorporate role modelling training into an academic half-day (AHD). It includes an e-lecture, simulation or role-playing scenarios, a guide for facilitated reflection and other helpful resources.

Passi V, Johnson N. The hidden process of positive doctor role modelling. *Med Teach*. 2015;38(7):700–707.

- This empirical study uses a grounded theory approach to generate an explanatory model of the process of doctor role modelling. Data are derived from semi-structured interviews, focus groups and observations of medical students and teaching faculty. The exposure and evolution phases of role modelling are derived from this study and described in detail.

Cruess RL, Cruess SR, Steinert Y, eds. *Teaching medical professionalism: support the development of a professional identity*. 2nd ed. Cambridge (UK): Cambridge University Press; 2016.

- This book provides an in-depth look at how professional identity formation can be supported across the spectrum of medical education. Role modelling features prominently throughout the book because of its central role in identity development.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

25. The role of coaching in residency education

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Objectives

At the end of this chapter you will be able to:

- explain the interdependence between observation, feedback and coaching
- identify three key educational principles required for successful coaching
- understand the Competence by Design coaching model
- clarify the importance of observation in coaching
- describe the RX-OCR process used to facilitate coaching encounters

Introduction

Feedback has been long recognized as an essential component of medical training, and it's something you will rely heavily on as a program director. However, the delivery feedback is often poorly executed, decreasing its effectiveness and meaningfulness. The challenges associated with providing feedback in medical training are many. There is a complex interplay between the individual learner and teacher that influences the content of feedback as well as how the feedback is delivered and how receptive the learner is to receiving it. Cultural norms, both within the local learning environment and more broadly within medical education, also influence the effectiveness of feedback.

In Competence by Design (CBD), the role of the clinical teacher is evolving from clinical supervision to a role that includes more observation and coaching of learners. When clinical teachers directly observe the work residents do or gather other data indirectly about the work that is done, these observations provide the teacher with the opportunity to move beyond traditional approaches to feedback and engage in coaching. Coaching provides actionable steps or suggestions for improvement and is beneficial for anyone who is pursuing optimal performance. Coaches can help an individual to do a task better, develop a skill they don't yet possess or achieve a specific goal. Coaching helps a learner understand what adjustments and modifications will allow them to progress to the next level of capability or proficiency.

Coaching is meant to guide learners through a growth process that leads to performance improvement. Traditionally, feedback alone simply provides information to learners about what was observed compared with an expected standard, whereas coaching not only

informs them what was noted during an observation but also, more importantly, focuses on specific actionable steps or suggestions for improvement (Figure 22.1). To use a sports analogy: a tennis coach would not simply describe how a forehand swing was incorrect. The coach would ask if the athlete had tried a body position correction before or might give specific suggestions for improvement such as an adjustment to the position of the body during the forehand swing.

It is notable, however, that over the last decade the definition of feedback has been evolving. In 2019, Ajjawi and Regehr suggested that feedback is a "dynamic and co-constructive interaction in the context of a safe and mutually respectful relationship for the purpose of challenging a learner's (and educator's) ways of thinking, acting or being to support growth."[1] Thus, overlap exists between modern conceptualizations of coaching and feedback in the medical education literature. For the purposes of CBD, coaching is the preferred term.

Figure 22.1 The interdependence of observation, feedback and coaching.

Key educational principles of successful coaching

The following principles are key to the success of the CBD coaching model. (https://www.royalcollege.ca/rcsite/cbd/implementation/wbas/coaching-and-cbd-e) These principles could form the backbone of your local faculty development initiatives. There are a number of resources available on the Royal College website (http://www.royalcollege.ca), and your local postgraduate medical education office will also have faculty development resources for this very important skill.

Principle 1: Building an educational alliance

In recent years, there has been a move away from the use of prescriptive structured feedback techniques. This change in thinking around feedback is related to an increased awareness that feedback is a process involving a bidirectional relationship between the person giving the feedback and the person hearing the feedback. This relationship or "educational alliance" has been proposed to be a key determinant of the effectiveness of feedback in improving resident performance. Effective coaching establishes an educational

alliance and confirms, for the resident, the clinical teacher's engagement in the educational process and commitment to providing guidance for the growth and development of the resident. Having such an educational relationship allows the two parties to mutually agree on the goals and expectations of the interaction and contributes to psychological safety for resident learning.

Principle 2: Growth mindset versus fixed mindset

The terms "growth mindset" and "fixed mindset" were coined by psychologist Carol Dweck and can be used to describe an individual's approach to learning. People who possess a growth mindset believe that their abilities can be developed through dedication and hard work. As a result, they are very receptive to high-quality feedback and coaching. Individuals with a growth mindset take advantage of learning opportunities and seek input from others on their work. This mindset creates a desire and drive for learning and a resilience that is essential for the development of successful coaching relationships.

In contrast, people with a fixed mindset approach situations with a judgment lens. 'Fixed Mindset' individuals believe you are good at something or you are not. Such individuals may want to hide weaknesses or mistakes and do not value challenging situations as learning opportunities. They also often respond negatively to feedback and suggestions for improvement, believing that they imply failure.

For coaching in CBD to be successful, both residents and clinical teachers must work toward developing and fostering a growth mindset. To achieve this goal, it is important that residents and faculty shift their thinking to embrace the view that the primary purpose of residency education is learning. Clinical teachers and residents both need to recognize the value of coaching in the learning process as it facilitates performance improvement and progressive development of expertise.

Principle 3: Assessment *of* learning versus observation *for* learning

In traditional residency education, the primary form of assessment was assessment *of* learning (summative assessment). The purpose of assessment *of* learning is to form a judgment or an evaluation and formally record what a resident knows or can do at that particular instant in time. Assessment *of* learning can create unease for residents and often puts them in a position of performing — in other words, doing what they believe is on a checklist as opposed to doing what they would normally do, as they feel appropriate, in the real clinical environment.

In CBD, we need to shift our thinking toward observation *for* learning (formative assessment). Observation *for* learning emphasizes observation of residents doing their daily work, rather than performing in a testing environment or situation. Observation is essential to the coaching process, as it allows the clinical teacher to guide the resident on what they can do to improve their current understanding or practice. These formative

observations are lower stakes and should be frequent and ongoing. They should be embedded throughout the learning process rather than taking place only at the end of a rotation.

Understanding the Competence by Design coaching model

The Royal College's CBD coaching model supports resident learning. It is part of an important philosophical shift in thinking about workplace-based learning and its purpose. It is important that you ensure that your faculty understand this model, so that they can incorporate it into their interactions with residents. There are many resources available on the Royal College website to help with coaching. (https://www.royalcollege.ca/rcsite/cbd/cbd-tools-resources-e?N=10000023+10000026+4294967138&searchstr=%27Coaching%2FTeaching%27)

The emphasis of the CBD coaching model is on assessment *for* resident learning and competency development. This model defines two distinct coaching roles: coaching in the moment and coaching over time (Figure 22.2). However, both of these coaching roles rely on the use of observed work in the clinical environment as learning opportunities.

Figure 22.2 The Coaching model

Coaching in the moment

Coaching in the moment is coaching that occurs in the clinical environment between a clinical teacher and resident. It follows a step-by-step process known as RX-OCR (Table 22.1). Use of the RX-OCR process promotes coaching irrespective of the duration of the clinical learning experience. Observations done as part of coaching in the moment are low-stakes observations of daily work, and the coaching provided facilitates development toward competent practice. Acquisition of the competencies needed for coaching in the moment should be a focus of broad faculty development in your program.

Coaching over time

Coaching over time requires a more longitudinal relationship between a designated coach and resident. In many cases, you as a program director will be in this coaching role, as will academic advisors and even some faculty members. This educational partnership lasts longer than any one clinical experience. It requires regularly scheduled face-to-face discussions about the resident's progression toward competence. These coaching encounters follow the same step-by-step process as coaching in the moment, RX-OCR (Table 22.1). However, the observations that inform these coaching encounters are those recorded in the learning portfolio. Learning opportunities are planned to address any identified performance patterns. For an "educational alliance" to develop and work well, residents must feel confident that the coach has their best learning interests in mind. Coaching over time focuses on helping the resident to become an independent, competent clinician who is prepared for a career as a self-regulated learner. To facilitate coaching over time in your program, you will probably need to provide some targeted faculty development for the smaller group of faculty who are providing this type of coaching to your residents.

Table 22.1 RX-OCR process

Rapport	Establish educational **R**apport between the resident and the clinician ("educational alliance")
Expectations	Set e**X**pectations for an encounter (discuss learning goals and roles, and foster a safe learning environment)
Observe	**O**bserve the resident (directly or indirectly)
Coach	**C**oach the resident for the purpose of improvement of that work
Record	**R**ecord a summary of the encounter

Resident progression

As a resident moves through their residency program, many documented observations and coaching encounters, involving multiple observers, build a representation of daily performance that is collected in a learning portfolio. The observations create an illustration of a resident's progress over time. As part of a program of assessment, your program's competence committee will monitor each resident's developmental progress and make recommendations to your residency program committee about entrustment for specific activities, resident promotion, and residents' readiness for challenging their final examinations (Figure 22.3).

Figure 22.3 Resident progression in the Competence by Design coaching model.

The importance of observation in coaching

Observation is a key ingredient for successful coaching. Within CBD, observations are defined as either direct or indirect.

Direct observation

Direct observation refers to the process of watching residents perform a task to develop an understanding of how they apply their knowledge and skills to clinical practice. There are countless examples. They include observations of residents performing a physical examination, completing a procedure, leading a resuscitation, giving patient handover, communicating with a family, managing a ward rounds or running a meeting, to name just a few.

Indirect observation

Indirect observation comprises observations that an individual makes without having directly watched the resident perform the task. Indirect observation could include information gathered from surrogate data such as a resident's oral case presentation, clinical documentation or reports from other health care providers, patients or families.

Observation in the Competence by Design coaching model

Ideally, most coaching in the moment should occur following a direct observation of clinical activities. Direct observations can increase the value of coaching encounters as they make it easier for the coach to suggest actionable steps for performance improvement. Indirect observation is a valuable alternative to direct observation for coaching in the moment, as it enables the coach to assess different skills, such as clinical reasoning. Given that coaching over time occurs longitudinally and outside of the clinical environment, the foundation of these coaching encounters will be review of and reflection on recorded observations in a learner's portfolio.

Challenges to observation and coaching

Recent work has identified barriers to direct observation that can make coaching more challenging. Resident-identified barriers include concerns relating to overburdening their clinical teachers and the potential for residents to view direct observation as a form of summative assessment, leading to anxiety and avoidance behaviours. Teachers, on the other hand, have expressed fears about decreased resident autonomy and resident–supervisor trust. A barrier identified by both residents and teachers is the amount of time required to perform direct observation and the impact on efficiency of clinical care.

Given the emphasis on observation, feedback and coaching in CBD, these challenges make it is clear that education for both faculty and residents is an important part of building regular direct observation and coaching into the medical education culture, and specifically the culture of your program. It is important to ensure that the teachers in your program are provided with opportunities to develop competencies that will enable them to effectively engage with your program's residents as coaches. In addition, it is important that residents are well oriented to the coaching process in CBD, to encourage them to engage in the process. Education also needs to be provided to everyone about the growth mindset and how to incorporate it into practice and about the importance of psychological safety in a learning context and how to foster it.

The next section introduces the acronym RX-OCR, which represents a process that both residents and faculty can use to facilitate coaching encounters. This process incorporates key steps necessary for successful coaching interactions and can address some of the challenges discussed above.

RX-OCR process to facilitate coaching encounters

Coaches can follow the step-by-step process known as RX-OCR to facilitate any coaching encounter. The five steps are described in Table 22.1. The Royal College offers Coaching to Competence interactive activities that you and your faculty can use to practise applying the RX-OCR coaching process (**https://www.royalcollege.ca/mssites/rxocr/en/story.html**) (https://www.royalcollege.ca/mssites/rxocr/en/story.html)). The activities will help you to identify gaps in knowledge and skills related to coaching so that you can work to help close these gaps through further practice, reflection and other learning opportunities.

Tips

- Build an educational alliance by explicitly stating your role as a coach.
- Use the RX-OCR process when you engage in coaching encounters.
- Ensure that actionable steps or suggestions for improvement are the result of coaching encounters.
- Coaching in the moment works best when it is based on direct observations.
- Ensure your program has dedicated someone to provide coaching over time for each resident.

Conclusion

While coaching in CBD may seem like a new concept, you and your faculty members have been probably been engaging in some form of coaching for years. This chapter highlights the importance of coaching in CBD and introduces the educational principles that are key to successful coaching. The coaching model presented in this chapter, along with the RX-OCR process, will help you, your faculty and your residents to incorporate coaching into your program and ensure that residents achieve peak performance. Development of your faculty's coaching capacity, skill and competence will require a faculty improvement program. Similarly, residents will require orientation and education to ensure that they take full advantage of coaching interactions. Effective coaching can only exist in a system that supports it.

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26. Workplace-based assessment

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Objectives

At the end of this chapter you will be able to:

- describe the role of workplace-based assessment in Competence by Design (CBD)
- explain the notion of entrustment and its importance in promoting residents in CBD
- explain how faculty can teach others to use the entrustability scale

Introduction

Competence by Design (CBD) seeks to improve training by increasing observation and "assessment for learning" to ensure graduated independence and competence in training. In CBD, the teaching, learning and assessment of physician competencies are grounded in their daily practice environment. The idea is to encourage frequent low-stakes assessment opportunities that take place throughout residency training. The aim of frequent observations and feedback is to facilitate the gradual development of a trainee's ability to safely perform the clinical and professional tasks of their discipline without supervision. The accumulation of these low-stakes observations provides information and data both to you as program director and to your program's competence committee to determine a trainee's development of competence as they progress through various stages of training.

As a program director, you know that assessment of competence involves more than simply testing knowledge. It requires observation and documentation of what residents "do" in clinical practice. This corresponds to the highest level of Miller's pyramid and is the essence of workplace-based assessment (WBA) and observation.[1] Nurturing and assessing resident competence requires that trainees be observed during many practice opportunities and that sufficient and specific information be gathered about trainee performance in the workplace.[2–4] WBA facilitates trainees' development because of its low-stakes nature, but it also contributes important performance data for progress and promotion decisions.

As a program director, you will need to consider the faculty development needs in your environment, to ensure that the clinical supervisors who perform WBA for residents in your program have the skills that they need to do this work. The information in this chapter, along with the resources in the references, will help you do this.

Entrustable professional activities — the organizing framework for workplace-based assessment

Entrustable professional activities (EPAs) are key tasks of each specialty discipline that can be learned, assessed and delegated in authentic practice environments. EPAs integrate the various CanMEDS Roles and are linked to multiple CanMEDS milestones. EPAs and their component milestones are developmentally progressive and aligned with each stage of residency training. Milestones may have their greatest utility in providing content upon which to design curriculum and focus feedback to learners when they have or have not achieved an EPA. It is clear that limiting the number of milestones for each EPA assessment and focusing faculty on the narrative component of the assessment may improve the quality of the coaching and documentation.[5-7]

EPAs are high-value tools for learning, but they also serve as summative benchmarks of the learning that has occurred. Formative teaching occurs in physician practice settings and involves multiple frequent workplace observations linked to timely feedback for trainees. This feedback is necessary to guide a resident's learning progression. Documentation of the observation also provides essential information that competence committee members later use to help inform their recommendation about resident progress and promotion to the next stage of training. For each EPA, the respective Royal College specialty committee offers a recommended number of successful observations that support a determination of competence. Multiple practice observations across different contexts by different assessors over time provide a comprehensive image of a trainee's practice ability, which is needed to make this decision.

How workplace-based assessment works on the ground

In CBD, you want to ensure that your faculty make use of authentic clinical supervision opportunities to engage in the WBA of each resident's performance. Observation of trainee performance is followed by a conversation in which the clinical teacher offers specific feedback for improvement and actionable strategies to accomplish these improvements. This verbal feedback then gets recorded, so that it can contribute practice performance data to inform residents' personal learning plans and the EPA achievement decisions of the competence committee . Frequent and timely coaching conversations between a learner and observer are a critical element of WBA in CBD.[8] This is known as coaching in the moment, and it follows the RX-OCR process (Table 24.1):

Table 24.1 RX-OCR process

R	Establish educational **R**apport between the resident and the clinician (an educational alliance or partnership)
X	Set e**X**pectations for an encounter (discuss learning goals).
O	**O**bserve the resident. With CBD, the role of clinical teacher is evolving from supervisor to frequent observer and coach. When clinical teacher directly or indirectly observe the work residents do more often, their observations provide greater learning opportunities and a more comprehensive image of trainees' competence.
C	Engage in a **C**oaching conversation for the purpose of improvement of that work. As part of this conversation, the clinical teacher gives the trainee "coaching feedback." focusing on specific actionable suggestions for improvement and how such improvements can be accomplished
R	**R**ecord a summary of the encounter, including observation specifics and performance ranting, using an observation form.

Faculty development resource: RX-OCR module (https://www.royalcollege.ca/rcsite/documents/cbd/coaching-to-competence-e) – This module can be useful as you start to design a faculty development plan. In addition, your local CBD lead or postgraduate medical education office may have resources to help in this domain. Don't forget to collaborate with other programs, as the skill set required to perform WBA will be needed across all programs.

The roles of clinical faculty and the competence committee

It is important that your faculty understand that they are *not* responsible for making summative decisions about a trainee's overall competence or EPA achievement; this responsibility is reserved for the competence committee. Rather, faculty play a coaching role by helping residents develop through frequent but thoughtful teaching observations coupled with actionable feedback and formative WBAs in practice settings. An individual EPA assessment can be thought of as the educational equivalent of a progress note: it's only one step in the evolution of a resident. Decisions about competence are not based on this single assessment but rather on the trainee's developmental trajectory and achievement of competence as determined by the competence committee (Table 24.2).

Table 24.2: Comparison of the roles of clinical faculty and the competence committee

Clinical faculty	Competence committee
• Observe resident performance • Provide coaching and feedback • Record the context of the observation and the verbal feedback given	• Determines achievement of entrustable professional activities • Makes summative decisions about residents' overall competence and promotion

Teaching observations should be linked to EPAs that align with the resident's current training stage and the routine practice activities of the clinical rotation. In many cases, it will be difficult to observe the entire EPA in a single encounter. In such cases, it is still valuable for the resident's overall learning if the supervisor provides specific feedback on a portion or particular aspects of the EPA, and these assessments contribute useful data that will be reviewed by the competence committee. Some WBA tools have been intentionally designed to assess multiple EPAs simultaneously. These tools often take the form of a daily assessment form.

Tips on conducting workplace-based assessments

- Supervisors have an obligation to create psychologically safe learning environments for feedback conversations to take place. It is vitally important that they consider power differential and various aspects of implicit, explicit, and structural biases and how they influence assessment and feedback conversations.
- Both residents and supervisors can initiate authentic practice observations. This approach encourages residents to take responsibility for directing their learning and assessment. However, residents should not initiate all of the observations. Faculty should also initiate some of the EPA assessments as this adds to the reliability of the assessment process and the data produced. This in turn improves the validity of the data as decisions about entrustment are made.
- Ideally, observations should occur frequently and be integrated into routine daily practice and workflow. When observation and assessment are normalized in the workplace, clinical faculty are more likely to provide concrete feedback on how the resident can improve and record honest assessments of resident performance.[9] Residents are also more likely to perceive each observation as low-stakes.[10]
- Observation of resident performance may be direct (e.g., observation of a trainee performing a knee examination) or indirect (e.g., discussion with the residents about a patient's treatment plan). Although direct observations produce optimal feedback, these are not always feasible given workflow demands and trainees' greater independence as they progress.[9] However, specific constructive feedback and valuable performance data can still be generated using indirect observation.

Documenting workplace-based assessments

WBA involves clinical supervisors documenting authentic observations in the workplace on a regular basis. Recording rich observation and feedback data is just as important as the verbal coaching that occurs, because it supports the formative and summative goals of WBAs. In their documentation of WBAs, clinical supervisors rate the degree of assistance

that the trainee required to perform the task and provide a brief but rich narrative that describes the context in which the task was observed along with the coaching feedback provided.

The Royal College has developed national observation templates (https://www.royalcollege.ca/rcsite/cbd/assessment/wbas/cbd-assessment-templates-e) to help clinical supervisors to document WBAs. However, individual programs and schools may choose to adopt different WBA tools with entrustment anchors to fit their local practice contexts and needs.

Rating scales that use entrustment anchors

WBA of residents should reflect the priorities and clinical expertise of the assessor while striving to mitigate and minimize potential biases. Traditional rating scales are often anchored to a predetermined level of training (e.g., below, meets, above expectations) or describe the quality of the performance (e.g., poor, acceptable, excellent). However, these scales are subject to the rater's own standard of expected performance, which varies from rater to rater. There are well-documented reliability and validity concerns with these forms of rating scales.[11-14]

In contrast, scales that incorporate entrustment anchors use the standard of competence or independent performance as the reference point for the top end of the scale.[15] These scales are meaningfully structured around the way physician supervisors already make day-to-day decisions about trainee performance. These decisions are rooted in the rater's judgments about how much supervision a trainee required to perform a task, with the eventual goal of training clinicians who are ready for safe, unsupervised practice.

Although many terms have been used to describe scales that incorporate entrustment anchors (e.g., entrustability or independence scales), these tools are conceptually similar in that they are behaviourally anchored ordinal scales based on progression of competence that reflect increasing levels of independence.[12] Entrustment anchors have been demonstrated to be more reliable than traditional anchors.[16,17] Experience with entrustment anchors has also demonstrated that trainees are willing to accept lower scores if paired with concrete and actionable feedback.[18-20]

The Royal College has adopted a particular set of entrustment anchors that have repeatedly demonstrated excellent reliability and the ability to discriminate between junior, mid-level and senior residents when applied to various clinical settings: "I had to do," "I had to talk them through," "I had to prompt them from time to time." "I needed to be in the room just in case" and "I did not need to be there.".[18-23] Although entrustment anchors seemingly favour procedural-type teaching observations, these anchors can also be an effective means by which to assess non-technical skills, such as performance in an outpatient clinic.[19,20,23]

O-SCORE Entrustability Scale

Level	Descriptor
1	**"I had to do"** i.e., requires complete hands on guidance, did not do, or was not go given the opportunity to do
2	**"I had to talk them through"** i.e., able to perform tasks but requires constant direction
3	**"I had to prompt them from time to time"** i.e., demonstrates some independence, but requires intermittent direction
4	**"I needed to be in the room just in case"** i.e., independence but unaware of risks and still requires supervision for safe practice
5	**"I did not need to be there"** i.e., complete independence, understands risks and performs safely, practice ready
	Gofton WT, Dudek NL, Wood TJ, Balaa F, Hamstra SJ. The Ottawa surgical competency operating room evaluation (O-SCORE): a tool to assess surgical competence. Acad Med. 2012;87(10);1401-7. Reproduced with permission of the authors.

Faculty Development resource: Entrustment module (https://www.royalcollege.ca/mssites/entrustability/index.html#/) – Provides examples of the entrustment anchors in action for procedural and non-procedural EPAs.

Tips on assigning ratings in tools for CBD workplace-based observation

Learning to use entrustment anchors can be difficult in the beginning, in part because observers are sometimes unclear about the implications of making certain judgements. The following tips may help with their learning as well as their comfort levels.

- The rating assigned should reflect the performance observed in that encounter; it is not a prediction of future performance. For example, giving a rating of “I did not need to be there” indicates that in retrospect the supervisor did not need to be present for the encounter that they just observed. It does not mean that the resident is authorized to do the clinical task independently going forward.
- A rating of “I did not need to be there” does not mean the supervisor didn’t provide feedback during or following the observation. Although the trainee may have demonstrated competence, the supervisor can and should provide feedback to move

them toward excellence or mastery (i.e., alternative approaches or opportunities to improve efficiency).
- Distinguishing between “I needed to be in the room just in case” and “I did not need to be there” can often be challenging. When deciding between these two ratings, it may be helpful for the supervisor to consider the *efficiency* with which the resident performed the task as well as their observation of the trainee’s ability to *anticipate* and *mitigate* real or potential risks involved in the activity.
- Each EPA observation should be low-stakes. Each observation reflects the performance of the resident on a particular task, under unique conditions and within a specific context, and it represents a single data point among many. No single rating determines whether the resident has, or has not, achieved the EPA. Summative decisions of EPA achievement and overall competence are determined on the basis of performance *trends* by the competence committee. Multiple data points across contexts, time and raters provide a more comprehensive image of a trainee’s practice ability.
- Be aware of potential biases in assessment systems that can influence our interaction and engagement with learners during and after assessment.

The critical role of narrative comments

Following a teaching observation, trainees should ideally be provided with specific face-to-face verbal feedback about their performance. This information should also be well documented. Brief but well-written narrative comments are highly valuable information within any WBA.[24] At the most basic level, narratives provide essential observation information that performance ratings cannot capture. These narratives document information about:

- specific behavioural guidance provided to the trainee to improve their future practice performance
- the context of the observation with sufficient detail to justify the performance ratings

Although trends in performance ratings help the competence committee track a resident’s progress, it is the narrative comments that provide the rich context of the observed performances necessary to make judgments of competence. These comments also provide the resident with data for personal reflection and creation of a personal learning plan.

Tips for improving narrative documentation in tools for CBD workplace-based observation

Faculty can be trained to provide high-quality comments and faculty development initiatives should focus on helping supervisors to do this. The following tips may be useful:

- Provide the context of the observation (e.g., setting, patient characteristics, case complexity).
- Provide a rationale for the WBA performance ratings you assigned. Give enough detail for an independent reviewer to understand the trainee’s performance.

- Provide suggestions for performance improvement, and do so in a supportive manner.
- Consider power differentials in how language can be perceived. Ensure comments are constructive, action-oriented, and specific.

Strategies for dealing with challenges you'll probably encounter with observers

Challenge 1: "I don't have time to observe and document"

Whether they know it or not, your faculty are already in the habit of observing resident performance in the clinical environment; this is how residents receive feedback for improvement. Not all observation has to occur in real time. For example, observation of performance can take the form of reviewing a case with the resident and having them explain their management plan or reading through the resident's note and corroborating their findings by seeing the patient yourself. When it comes to direct observation, the literature is clear that being intentional and planning opportunities for real-time observation increases the likelihood that it will occur. [9,25] This is best done at the start of the day with the resident. When it comes to documenting assessments, faculty will need to determine what works best for their workflow. For some, this may involve completing assessments in the moment, while for others it may work best to complete them at the end of the day. Some programs set a goal with a minimum of one documented observation per day. Ensuring that faculty and residents have quick access to the electronic platform in their practice setting is critical for facilitating documentation. It is also important to consider equity when discussing time/workload. For example, are all faculty who are concerned or overwhelmed provided access to time for the necessary tasks of supervision?

Challenge 2: "Residents only seek observations of strong performance"

It is human nature to want to perform well and be recognized. Nurturing a growth mindset does not happen overnight. However, there are several strategies that can help address the issue of selective observation. For example, it is important to set up your system so that both residents and faculty can initiate EPAs. Residents may not always be comfortable seeking feedback when they have performed poorly. However, observation and documentation in these situations is necessary to see growth, identify areas for improvement and ensure a breadth of clinical experiences. These benefits should be clearly explained to residents during their orientation and throughout their training to foster a disposition for seeking feedback. Faculty should also be oriented to your discipline-specific EPAs and be encouraged to trigger ad hoc observations. Sharing the responsibility of triggering and documenting observations in daily practice can help normalize the process of WBA for both faculty and residents.

Conclusion

Workplace observations are a critical component of a program of assessment within CBD. They serve as a stimulus for coaching and feedback as well as a means of collecting clinical performance data. Teaching observations should be linked to EPAs that align with the resident's current training stage and the routine practice activities of the clinical rotation. In addition to the verbal feedback they provide to residents, supervisors should strive to document high-quality, rich narrative comments that provide sufficient detail to guide the resident in terms of their personal learning and also support the rating assigned. WBA ideally uses a variety of information, such as specific EPA or procedural observation forms, narrative observations, specialty- or program-specific (daily) assessment forms and multisource feedback tools. WBAs should be sampled broadly across different contexts and raters to create the comprehensive image of a trainee's practice ability needed to inform decisions made by the competence committee. As a program director, you will see how important faculty development is in providing your faculty with the skills they need to provide effective WBA to support resident growth and development.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

27. Working with an electronic portfolio

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Objectives

At the end of this chapter you will be able to:

- describe the purpose of an e-portfolio
- describe how to interpret and further analyze data presented by e-portfolio tools
- describe how to use an e-portfolio for continuous quality improvement
- describe challenges and risks related to the use of an e-portfolio

Case scenario

You are the new Program Director for Internal Medicine at your institution and you are so looking forward to your role. Within the context of the Competence By Design (CBD) curriculum, you are finding that the residents are struggling to stay on top of the assessments they need and the Competence Committee is finding it difficult to review all of the assessment data that is being collected. Residents have also raised concerns about individual faculty members and entire rotations where assessments are just not being completed. You know that your program and/or institution has access to an electronic portfolio (e-portfolio) system, but you do not know how to begin optimizing it to address these problems.

Introduction

CBD results in residency programs collecting a large number of resident assessments. This is largely due to the assessment of entrustable professional activities (EPAs), but programs also incorporate assessment modalities such as in-training evaluation reports, written and oral examination scores, procedure logs, non-EPA narrative assessments, progress on learning plans, etc. This variety of assessment data should provide a more comprehensive assessment of resident progress that results in more data-driven decisions regarding resident learning plans and promotion.

However, this large volume of assessment data needs to be amalgamated and visualized effectively to support valid interpretations. This can be supported through electronic portfolios, tools that allow visualization of collected data for learners, academic advisors,

and competence committees. These tools serve a dual-purpose of promoting learning and providing more comprehensive assessment data for promotion decisions.

The ability of the learning management systems available within each university to create an effective competency-based e-portfolio varies. There is no single best approach to developing an e-portfolio, and the approach taken by one program or institution may differ from others based upon their needs and the resources that are available. As learning management systems become more sophisticated we anticipate that they will be better able to meet the assessment needs of programs and learning needs of residents in addition to supporting continuous quality improvement (CQI) through program evaluation and faculty development.

Within this chapter, we will outline how e-portfolios can be effectively used and/or developed in your residency program.

Establish an e-portfolio for your residents and Competence Committee

The value of an e-portfolio

Both learners and competence committees can benefit from visualization of assessment data using e-portfolios. Learners can review their assessments, track their progress, and identify both areas of strength and skills requiring further development. In some programs this interpretation is supported by faculty academic advisors. Competence committees often need to review large amounts of assessment data. They are able to function more efficiently when they can easily navigate through the assessment data. E-portfolios can present data using visualizations that demonstrate trends in performance and sources of variation in assessment (e.g. is a lower rating for one EPA evaluation due to a lower performance or a stricter rater?).

Taking stock of what's available already

If you happen to be part of the team establishing the first e-portfolio in your training program it is important to understand what is already available. Does your Postgraduate Office provide an e-portfolio within your learning management system (e.g. Elentra, one45, Medsys, etc)? Does the tool that you are using to collect assessment data allow data to be exported and uploaded to external e-portfolio software? Have other training programs at your institution developed their own e-portfolio that your program could adopt? Finding the answers to these questions in collaboration with your Postgraduate office will help you determine what your options are while ensuring that efforts are not duplicated within institutions.

Key Functionalities

An effective e-portfolio allows viewers to navigate between assessments efficiently in a way that allows assessment of a resident's overall performance relative to the expectation of the program of assessment. This may include "bench marking" with other residents at a similar level. EPA data is often presented by stage with entrustability scores graphed over time to provide a 'growth-curve' for a resident. Visualizations should ideally incorporate the contextual information required for that EPA (e.g. faculty or resident assessor, direct or indirectly observed, specific clinical presentations, case complexity, etc) and link to corresponding narrative comments. If your program's e-portfolio does not have the functionality to track contextual variables, it will be important to work with them to find a solution, as this information must be tracked in real time.

Resources for further development

Your program may have unique needs that are not fully met by the e-portfolio tools available. For instance, you may want to incorporate other assessment modalities beyond EPAs into your visualizations. If you decide to develop new visualizations, collaborate closely with your Faculty/Department as you will need to investigate whether technical support is available to meet these needs.

Continuously refine your e-portfolio

As CBD matures and your program evolves, the needs of Program Directors, Competence Committees, and residents are likely to change. It is almost certain that these changes will require your e-portfolio to be modified. We recommend speaking with your institution to determine when and how modifications to the e-portfolio will be made for your program so that you can be prepared to contribute to its evolution. We recommend tracking suggestions for modifications that arise over time so that your ideas are readily available when the next opportunity to improve your e-portfolio arises.

Extend the use of your e-portfolio to support continuous quality improvement

Once all of your residents' information is amalgamated into an electronic portfolio, consideration can be given to how else this information can be used to improve your program. The use of learner assessment data to support CQI of residency programs is a developing field that requires more sophistication than the establishment of learner-specific portfolios. It is prudent to work with your CC chair to decide what CQI information your program would like to track, work with your PGME to develop functionality to track it within the e-portfolio, and create a faculty/resident strategy to implement improvement initiatives.

Grouping resident assessment data by rotation can provide insight into what is occurring on each of your program's rotations. For example, your residents may complete an intensive care rotation with a goal of becoming competent in central line placement as measured by an EPA. A review of the EPAs completed on ICU may find that this EPA is not being completed as expected. You could then try to determine why this is the case: Are

EPAs not being completed on ICU at all? Are fewer central lines placed on ICU than expected? Are fellows or residents from other services placing them instead? The answers to these questions may lead to interventions that can improve your program.

When resident assessment data is grouped by faculty member it can be used for ongoing faculty development initiatives. For example, there may be a group of faculty who provide minimal narrative feedback on the EPAs they complete. Audit and feedback mechanisms are used within clinical CQI initiatives to highlight practice variation for clinicians and can be used in these cases for education. These results could be explored confidentially with these faculty members with the goal of gaining a better understanding of the results and determining how their assessments can be improved.

Ensure the security of the assessment data

Resident assessment data is sensitive information that must be managed with care. There are institutional policies and protocols surrounding the access and distribution of student data that should be used to guide the safe and appropriate use of this data. These policies address complicated issues that arise as residents are assessed by a complex web of supervisors across rotations, programs, and institutions. Specific recommendations include ensuring that assessment data only be accessible to individuals who need it to conduct essential tasks and that it be stored securely using institutional usernames and passwords.

Avoid over-interpreting the assessment information

The interpretation of resident assessment data is complex and multifaceted. Even when presented effectively, misinterpretation is possible. Assessment data should be reviewed within the broader context of the program of assessment. For example, low numbers or entrustability ratings on EPA observations could be the result of many things including poor resident performance, faculty inexperience/uncertainty with the new assessment system, variations in rotation scheduling, resident personal difficulties, or any number of other explanations. Be aware that additional context is often needed to interpret assessment data accurately. Programs should consider how other these factors might impact residents' ability to meet the assessment guidelines outlined by each specialty's national assessment program and what processes are in place to mitigate these factors.

Conclusion

In summary, electronic portfolios are essential tools to run a CBD assessment program. They facilitate understanding by combining and displaying assessment data and its variability over time. These features help learners to understand their progress and focus their learning, Competence Committees to effectively assess resident progress and develop learning plans, and program directors to engage in continuous quality improvement at the faculty and program levels. E-portfolio development requires institutional support and ongoing stakeholder engagement to ensure that the provided analytics and visualizations promote learning and development within your program.

Case resolution

You meet with your Postgraduate Medical Education office and are briefed on the latest capabilities of your institutional e-portfolio. They also connect you with an information technology team that is able to adapt the standard reports to the needs of your program. Working with various stakeholders, you develop an e-portfolio that is customized to the needs of your residents and Competence Committee. Further discussion results in dashboards outlining assessment metrics for your faculty and each of your rotations that are replicated by other programs at your institution.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

28. Program evaluation

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Objectives

At the end of this chapter you will be able to:

- explain the concept of program evaluation
- implement a step-by-step approach to conducting a program evaluation using a logic model
- be able to integrate program evaluation into the ongoing activities of your program

Introduction

Program evaluation focuses on questions of program *processes* (e.g., Are we implementing the program as originally designed?) and *outcomes* (e.g., Are we accomplishing what we set out to do?). In this chapter we provide tools and tips for conducting a robust program evaluation for your postgraduate training program. We discuss the importance of program evaluation and describe how to integrate it into the ongoing operation of your program.

What is program evaluation?

Program evaluation is formally defined as the systematic investigation of the quality of programs for the purposes of decision-making.[1] Unlike research, which focuses on generating new knowledge in a field primarily for the use of other researchers, program evaluation focuses on *utility* or generating information that can be used by those directly involved in the program for the pragmatic purposes of adjusting a program's goals and/or making decisions about whether or not a program should continue operating in a particular direction. Accordingly, program evaluation encompasses aspects of quality improvement, but it can also examine larger questions of program direction, efficiency, feasibility and viability. It is important to remember that a program evaluation can seek to evaluate an entire training program or focus on specific elements of the program that may be unique, new or in need of a revision.

Getting started with program evaluation: a five-step approach

Although program evaluation is a relatively new field,[2] there are many different models and applications of program evaluation.[3] Drawing from those models, we have identified five common steps that anyone can use to get started with a program evaluation initiative. If you would like a specific example in medical education or a more detailed description, please refer to Van Melle (2016)[4] or Kaba, Van Melle, Horsley and Tavares (2019).[5]

1. Gather key stakeholders

A stakeholder is defined as "someone what has a vested interest in the evaluation findings."[6] Because program evaluation is concerned with *utility* or ensuring the evaluation findings are actually used by key decision-makers, it is important to have those responsible for program leadership, implementation and operation involved in your program evaluation right from the beginning. Early engagement is particularly important when engaging with stakeholders related to equity, diversity and inclusion (EDI). They may not all need to be part of your core evaluation team or be present at every meeting, but you will want to consult with these individuals and get their input as data are reviewed and key decisions around program adaptation are made. So your first step is to identify key stakeholders in your program and to make sure they are included in the program evaluation process.

2. Create a logic model

Now that you have your key stakeholders engaged, the next step is to identify the focus for your program evaluation. A program evaluation can address questions of program process or outcomes. That's where a logic model comes in. A logic model is a tool commonly used in program evaluation to build an understanding of how a program is supposed to work, that is, the relationship between the program components or *process* and the program *outcomes*[4] (see Figure 25.1).

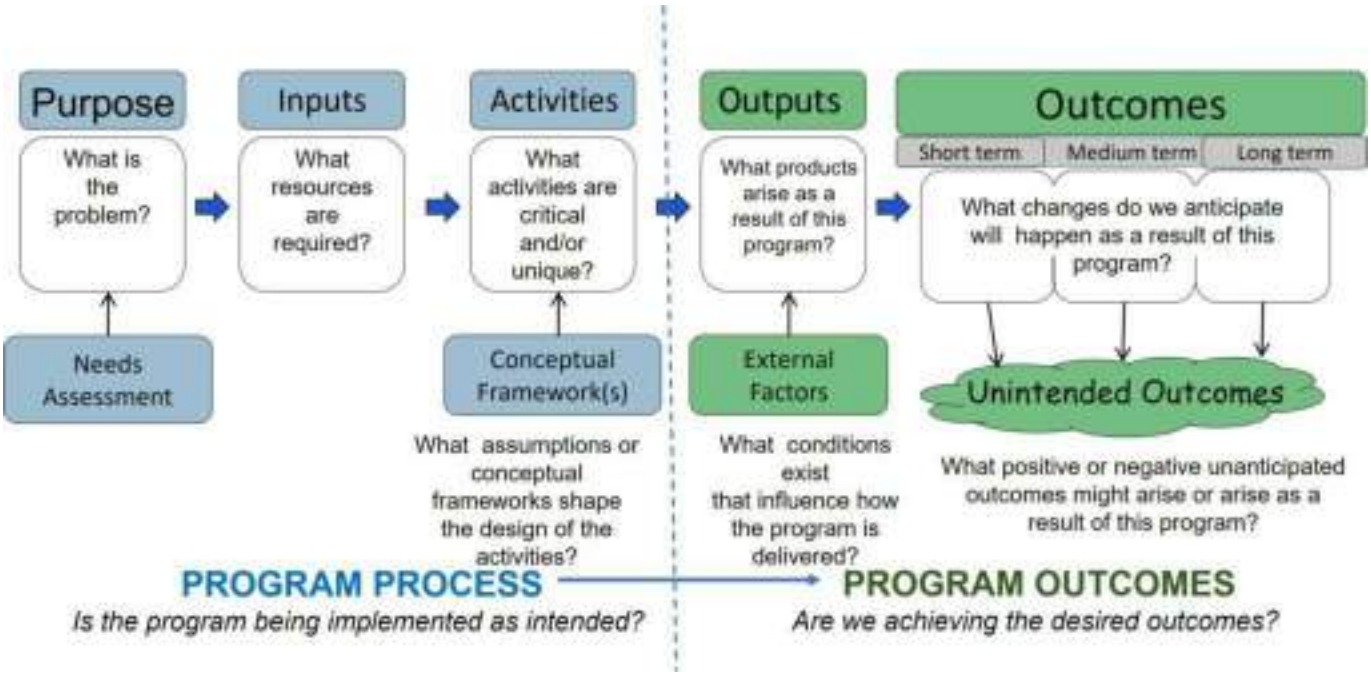

Figure 25.1 – Program evaluation logic model. Adapted from Van Melle E. Using a logic model to assist in the planning, implementation and evaluation of educational programs. Acad Med. 2016;91:1464.

As shown in Figure 25.1, a needs assessment forms the starting point for creating a logic model and leads to a clear understanding of the purpose of the program. By conducting a needs assessment you will provide your stakeholders with evidence that it is well worth dedicating the required resources to your program. These required resources are shown as inputs on your logic model. Ultimately these inputs are organized into program activities. In creating a logic model it is important to identify those activities that are truly key or critical for the operation of your program. Finally, to complete the program process side of the logic model, you can identify the underlying concepts or theories that inform how your program activities are organized.

The right-hand side of the logic model describes program outputs and outcomes. Outputs are the products affiliated with the program (e.g., number of participants, number of times the program has been delivered). Outputs are simply descriptors of the level of program activity. These may be influenced by external factors such as the timing of program delivery. Outputs do not speak to the quality or effectiveness of these activities. That's the role of outcomes. Outcomes describe the actual changes in behaviour or qualities that we expect will occur as a result of the program. For example, the Kirkpatrick model organizes outcomes of any training program into four levels: (1) reaction, (2) learning, (3) behaviour and (4) results.[7] Each level builds on the last and so there is a temporal quality. You would expect to capture level 1 outcomes (reactions) during or immediately after program delivery, with level 4 outcomes (results) occurring downstream from program implementation. This temporal relationship is described generically as short-, medium- and long-term outcomes in the logic model. Finally, because programs are often complex, it is not always possible to anticipate all possible outcomes. This is represented by the "unintended outcomes" component of Figure 25.1.

Each program will be at a different stage of development. Some may be well established, while others are still under development. This will become apparent as you complete the first draft of your logic model. The intent of this step is not to create a perfect logic model but rather to complete as much of it as you can, leaving room for additional drafts as the evaluation progresses.

3. Prioritize your evaluation questions

As you complete your logic model it will become apparent that you can ask many different evaluation questions that go well beyond examining outcomes. Working from left to right on the logic model, you may wonder:

Are we really convinced that there is a need for this program? In this case you may want to focus on conducting a needs assessment as a priority for your program evaluation.

Do we have sufficient resources to implement this program? In this case you may want to focus on examining inputs.

Are we implementing our program as intended? In this case you may want to focus on examining how the program is actually operating. This is often referred to as the fidelity of implementation.[8]

These questions fall under the umbrella of a process evaluation. Moving into outcomes, you may want to know:

What is our program producing? In this case you may want to focus on examining the actual numbers or outputs associated with your program.

Are we achieving the specific changes we set out to accomplish? In this case you may want to gather data about the specific changes that can be attributed to the program.

Finally, it is important to remember that you cannot anticipate everything when creating a logic model. You may have a sense that some unintended outcomes are emerging that are important to capture.

Given the multiple possibilities, it is important to prioritize with your key stakeholders your most important evaluation question(s), remembering that a good evaluation question should:

- address an issue of key concern to your program stakeholders;
- be answerable (that is, not philosophical or moral);
- inform the progress of your program in a timely fashion;
- be feasible to examine; and
- be phrased in a neutral fashion (that is, it should not assume a positive or negative result).

Furthermore, consider the evaluation question(s) that may be important to develop from an EDI lens. What voices are not adequately represented in your stakeholder group or program? What are the challenges that exist for underrepresented or marginalized residents? Have you engaged with diverse residents as stakeholders in your development of the evaluation question(s)?

4. Gather your data

Just as with research, it is important that your method for data collection match the nature of your evaluation question. For example, if you are gathering perceptions or are centring underrepresented voices, qualitative approaches are probably best. If, on the other hand, you are interested in different types of behaviours adopted as a result of your program, you may wish to use a more quantitative approach. And of course, using mixed methods, where qualitative and quantitative methods are deliberately combined, is always an option.

Regardless of the method you choose, balancing feasibility and credibility with practicality is a key aspect of program evaluation. Unlike research, where you may gather data over an extended period of time, program evaluation relies on timely data collection for the purposes of enhancing decision-making. The challenge is to make sure that the methods you use are well thought out and balanced in light of the need for timely data collection.

5. Act on and disseminate your findings

Data interpretation should be conducted jointly with all stakeholders at key points throughout the program evaluation. This approach maximizes the likelihood that that the findings will actually lead to program changes. The earlier and more often you can engage your stakeholders in making sense of and acting on the data, the better. Furthermore, the act of reflecting the data back to the stakeholders from whom the data were collected signals that you value their opinions or experiences; this can have a remarkable effect on the implementation process.[9] Additionally, for EDI-focused questions that may contain sensitive data that is difficult to anonymize; it is prudent to ask the participant or stakeholders for advice on how to discuss this information in a psychologically safe manner.

There may be times that you would like to publish your findings as part of a peer-reviewed process and so may be reluctant to formally share your findings early on. Indeed, a program evaluation that has a clear conceptual framework or "theory of change"[10,11] and builds on the existing literature should be considered as educational scholarship and so suitable for publication.[12] Creating a technical report in which you describe your progress in a timely fashion but do not include all details, such as specific methods or implications, allows you to share your findings as part of a program evaluation while leaving open the option of formally publishing your evaluation efforts down the road.

Building capacity for program evaluation

Given that programs are continuously evolving, program evaluation is best undertaken as an ongoing process.[5,8] Accordingly, you can consider ways of building in program evaluation as an ongoing activity within the operation of your program.

Helpful hints

Your logic model will evolve over time

In creating a logic model, the task is simply to get the conversation started. So focus on creating a logic model that is "good enough" and label it as a draft. You will probably continue to discuss and revise your logic model and create new drafts as your program evaluation unfolds and as your program develops over time. Creating and sharing your draft logic model is a great way to get ongoing engagement and buy-in from all stakeholders.

Reach out for expertise

Program evaluation requires expertise that you may not have immediate access to within your program. At many academic health science centres, evaluation expertise can be accessed through different departments (e.g., education, public health, community health and epidemiology, EDI/Anti-Racism offices). You do not need to have people with such expertise in your core stakeholder group, but it is well worth your time to reach outside the group to access advice that can assist in your program evaluation.

Keep your program evaluation simple

There may well be a trade-off between conducting the perfect program evaluation, working with the available resources and creating timely data for decision-making. A good rule of thumb is to keep your evaluation simple, recognizing that this is an iterative process. Opportunities for improvement will always be available. The main goal is to generate a process and data to inform decision-making.

Conclusion

Program evaluation is a specific field distinct from research and quality improvement in that the main focus is always on providing timely data for decision-making and program adaptation. To ensure that results are used, engaging stakeholders is a key feature of a robust program evaluation. A program evaluation can encompass many different questions examining both program processes and outcomes. Accordingly, program evaluation can be undertaken at any time in the development of a program.

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Excerpt from the Program Directors Handbook: A practical guide for leading an exceptional program.

29. Accreditation (CanERA)

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Objectives

At the end of this chapter you will be able to:

- outline the purpose and key components of the CanERA accreditation system
- list accreditation cycle activities, timelines, and decision categories
- address common areas for improvement and accreditation myths
- identify resources available to successfully prepare for and complete an accreditation review

Introduction

"What is accreditation and why am I doing it?"

Accreditation is, *"the process of formal evaluation of an educational program, institution, or system against defined standards by an external body for the purpose of quality assurance and enhancement."*[1] This process allows you as Program Director to really examine the program in detail from every aspect and ensure input from a broad range of stakeholders as you strive to make the program better.

CanRAC Statement on Equity, Diversity and Inclusion

The three CanRAC colleges have collectively embarked on a process to recognize and address issues related to equity, diversity and inclusion through the PGME accreditation standards. The primary objective of this work is ensuring that learning, and ultimately, care environments are inclusive, psychologically and culturally safe, and free from systemic bias. As an important part of these efforts, CanRAC understands that it must examine and help address systemic racism, which creates inequities in health and wellbeing, health care and social outcomes. Although the experiences of Black and Indigenous Peoples in Canada are distinct, both groups have experienced the severe and ongoing effects of colonial practices and of racism. While there are currently no expectations specific to the health of Indigenous, Black, and other vulnerable peoples

and groups at the level of the CanERA general standards, some faculties and programs have begun implementing measures to address health inequities and advance cultural safety and anti-racist practice during residency training. For example, all three Colleges are committed to fulfilling the Truth and Reconciliation Commission's Calls to Action), particularly those that focus on ensuring health care providers nurture and demonstrate cultural safety in medical education and practice. Recognizing that any proposed changes to the CanERA general standards must be driven by Indigenous Peoples and informed by extensive consultation with distinct Indigenous communities, CanRAC will rely on Indigenous partners and those with the historical, social, and cultural expertise to put forward recommendations that will result in meaningful change for Indigenous communities. Furthermore, the Colleges are committed to the integration of an anti-racism lens into medical education, research and clinical care. Our shared commitment to support self-determination will influence the health system and medical education to address the ongoing health inequities and racism faced Black and Indigenous Peoples, as well as other marginalized populations. To address the inequities experienced by all marginalized peoples and groups, this important work will continue to be developed by the CFPC, CMQ and Royal College. The three Colleges will actively explore how accreditation standards and processes can most appropriately and effectively define, evaluate, and implement clear expectations in postgraduate medical education. Ultimately, this will lead to improved therapeutic relationships and a culturally safe, anti-racist approach to medical care.

CanERA

CanERA (Canadian Excellence in Residency Accreditation) is the conjoint system of accreditation for residency education in Canada and includes stakeholders from the Collège des médecins du Québec, the College of Family Physicians of Canada, and the Royal College of Physicians and Surgeons of Canada. It is an outcomes-based accreditation design that is able to accommodate both time-based and outcomes-based educational training programs with the evolution to Competence by Design.

The aim of CanERA is to:

- ensure the quality of residency education provided across Canada;
- objectively evaluate residency programs and institutions to ensure compliance with required expectations;
- facilitate and contribute to the continuous quality improvement of residency programs and institutions;
- ensure that residency education adequately prepares residents to meet the health care needs of their patient populations upon completion of traini

For Program Directors, although it is a requirement, and can seem like a lot of additional work, accreditation will provide you with confirmation of everything that is going well in your program, as well as a detailed roadmap of things to work on going forward.

The Accreditation Cycle

"How does this work?"

As a Program Director, you are probably wondering how accreditation works. After we unpack it, you'll see how manageable it is!

The CanERA accreditation process takes place within a continuous, eight-year accreditation cycle, with expectations for ongoing quality improvement to the residency program throughout. Within this cycle, the regular accreditation survey is conducted every eight years for the institution as well as for each of its residency programs. The eight-year process is, however, punctuated with key accreditation activities at select, predictable points across the cycle as illustrated in the figure below. Further descriptions of the accreditation decision categories, and their associated follow-up and timelines can be found in section 5 of this chapter.

During each regular accreditation survey, there are a number of components that contribute important pieces of information to the accreditation review and decision.

- CanAMS: The Canadian Accreditation Management System is a digital cloud-based application that has been developed to not only support and streamline accreditation activities, but to provide postgraduate offices and residency programs with a tool to support continuous quality improvement. Once populated, CanAMS will contain all program profile instruments and required pieces of evidence that can be easily validated or updated on a regular basis. This will help you keep your program information up-to-date, so it isn't as much "new" work each time your program comes up for review! Accreditation surveyors will use information from CanAMS to assist with the accreditation review.
- Data integration: Throughout the eight-year accreditation cycle, continuous program evaluation data will be collected by CanERA. Currently, data integration consists of annual resident and faculty surveys administered and analyzed by the accrediting colleges. This aggregate anonymized information will be returned directly to program directors to help inform a program's own continuous quality improvement. This is a good thing for programs! By continuously integrating this information into a continuous quality improvement process, programs will improve their ability to maintain compliance with the required accreditation standards and processes at all times, instead of dealing with issues in "boluses" as they prepare for their accreditation cycle. Additional sources of data integration information will be added to this process in the future, in consultation with postgraduate deans, program directors and other stakeholders.
- Onsite visit: Interviews and document reviews are conducted in order to evaluate the accreditation standards and in some cases, validate information submitted through CanAMS.
- Previous accreditation outcomes: Results from the most recent accreditation review ensure follow-up of any documented areas for improvement. So be sure to look at

your program's last review!

Accreditation cycle

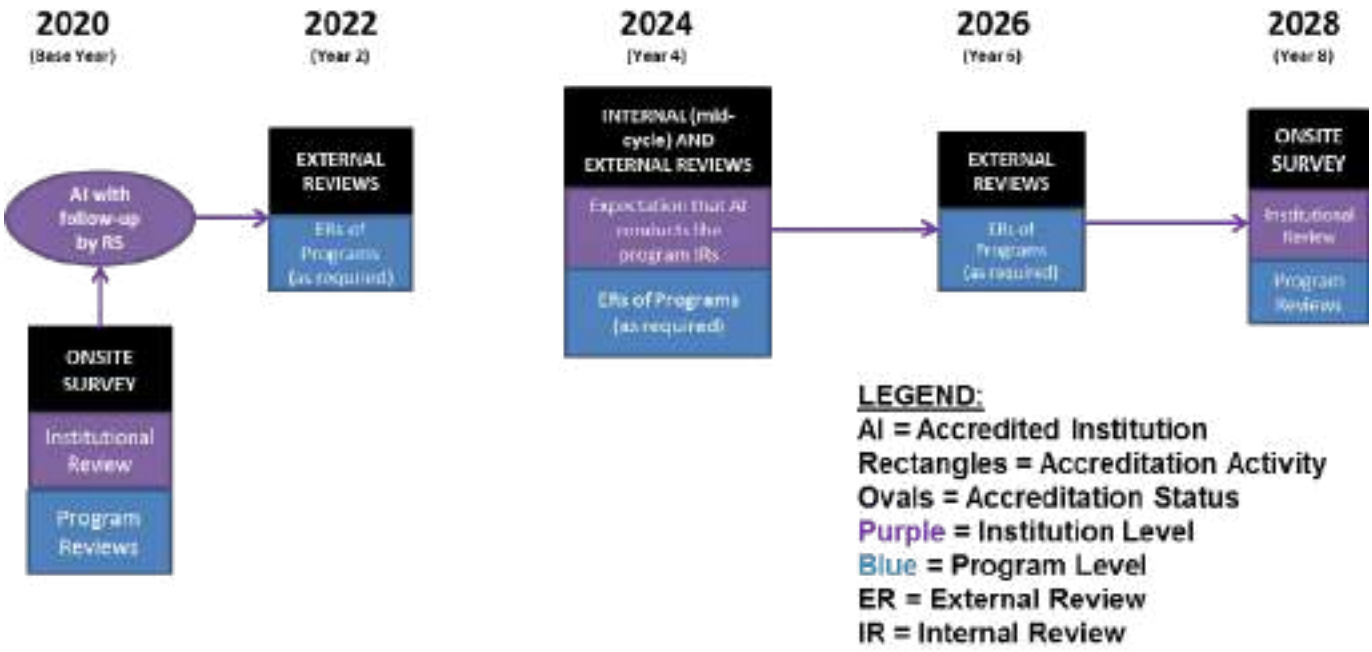

Fig. 26-1 Accreditation cycle

The timeline

"What do I need to do, and when do I need to start?"

Although the CanERA accreditation system is a continuous model of accreditation with expectations of ongoing program evaluation and improvement throughout the cycle, there is some expected work prior to any onsite accreditation review. Detailed preparations for the regular accreditation review begin about two years in advance, with the identification of the dates for the week that the review will take place; this is a collaborative process between the Royal College, CFPC (and CMQ, in Quebec) and the university. Residency programs are then expected to begin actively preparing for the specific tasks associated with the regular accreditation review. The volume of preparation will be reduced for programs that have kept their information up-to-date throughout the accreditation cycle, so it's a good idea to review things regularly with your Residency Program Committee(RPC)!

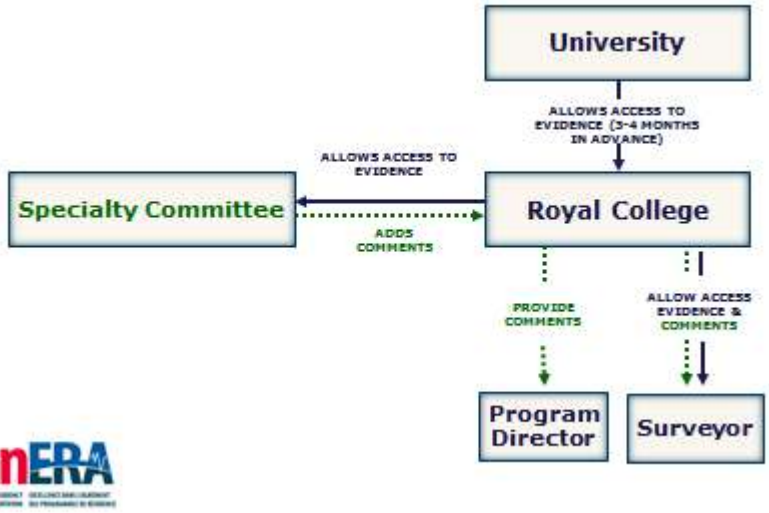

Fig. 26-2 CanERA

Key tasks and timelines for program directors

12-18 months in advance:

- Review CanERA general and specialty-specific accreditation standards (see section 4)
- Complete CanAMS training modules
- Access CanAMS program profile instrument, review questions, and ensure narrative responses and uploaded documents are current
- Ensure responses to previously identified areas for improvement (AFIs) are up-to-date and reflective of the most recent QI efforts

6-12 months in advance:

- Discuss program strengths and areas for improvement with your RPC and your residents to ensure their views are accurately captured in the CanAMS answers
- Attend the pre-accreditation review workshop delivered by the Royal College and the CFPC (and the CMQ, in Quebec), to learn process details, clarify questions, and receive key templates (e.g., program schedules)

1-4 months in advance:

- Work with your program administrator to build the program review schedule, using the Royal College's template, and ensure availability of key program stakeholders, and meeting rooms, as required
- Submit the program profile instrument and response to previous AFIs through CanAMS, and work with your postgraduate office to finalize the submission

Day of review:

- Prepare any required documentation for the onsite accreditation review
- Respond to questions or clarifications requested by the relevant Royal College specialty committee
- Greet the surveyors the day of the accreditation review

The Accreditation Standards

"What are the accreditation standards?"

The CanERA residency accreditation standards are organized according to an established hierarchical framework: domain, standards, elements, requirements, and indicators. This structure allows the standards to cover both overarching outcomes of residency education quality, and concrete, measurable components for residency programs. During accreditation reviews, residency programs and institutions are evaluated against each requirement, based whether or not the program meets the associated indicators.

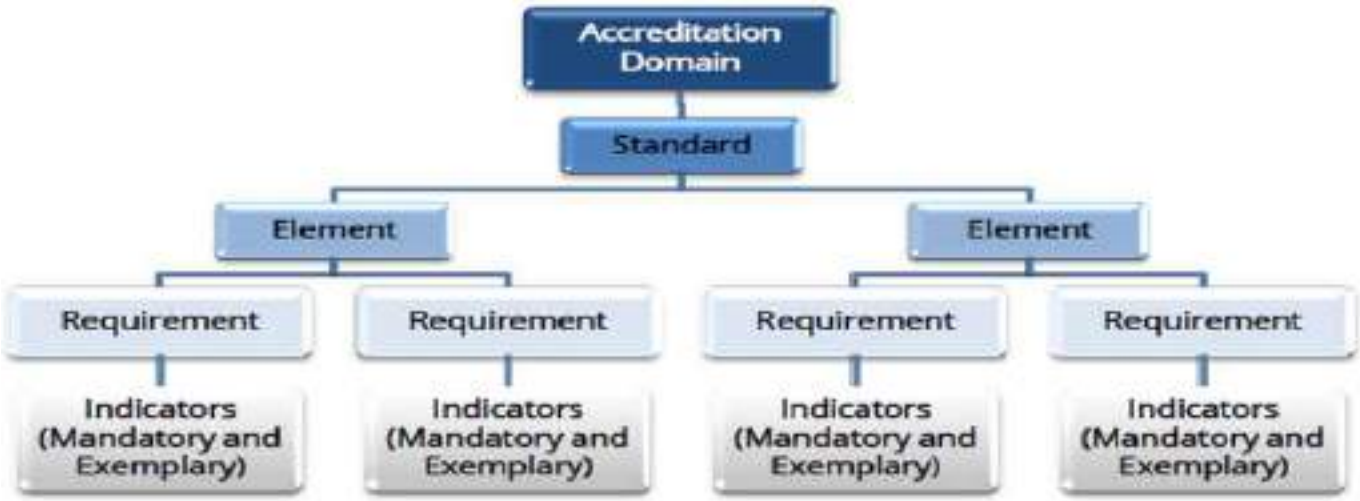

Fig. 26-3 The Accreditation Standards

Surveyors will evaluate whether each indicator is met or not met. If all required indicators in a requirement are met, the requirement is also met. If one or more required indicators is 'not met', the requirement becomes an Area for Improvement (AFI). Surveyors will recommend whether the AFI must be addressed within two years (AFI-2Y), or whether the AFI can be something the program can work towards over the eight-year cycle, in time for the next regular review (AFI-RR).

There are different CanERA general standards that apply to institutions and residency programs. The *General standards of accreditation for institutions with residency programs (http://www.canrac.ca/canrac/canrac/documents/general-standards-accreditation-for-institutions-with-residency-programs-e.pdf)* include requirements applicable to all faculties of medicine, postgraduate offices, and learning sites. Your PGME office will take care of these standards. They ensure residency programs are supported in their delivery of residency

education and in their continuous quality improvement efforts. These standards are organized according to three domains: Institutional governance; Learners, teachers, and administrative personnel; and Continuous improvement.

The *General standards of accreditation for residency programs* (http://www.canrac.ca/canrac/canrac/documents/general-standards-accreditation-for-residency-programs-e.pdf) include requirements that apply to all residency programs including their respective learning sites. These standards are those for which you, as Program Director, will be responsible. The purpose is to ensure that Canadian residency programs adhere to a set of high, uniform standards in their design and delivery of residency education. The program standards are organized according to five domains: Program organization; Education program; Resources; Learners, teachers, and administrative personnel; and Continuous improvement.

In addition to the CanERA general standards, each residency program also has accreditation standards specific to the content of your specialty or subspecialty area. The standards of accreditation for each discipline build upon and complement the General Standards of Accreditation for Residency Programs. They provide additional discipline-specific expectations regarding educational experiences and content, assessment, and resources.

Here is an example of one of the general standards, with the CanERA hierarchical framework:

DOMAIN: PROGRAM ORGANIZATION

The Program Organization domain includes standards focused on the structural and functional aspects of the residency program.

STANDARD 1: There is an appropriate organizational structure, with leadership and administrative personnel to support the residency program, teachers, and residents effectively.

Element 1.1: The program director leads the residency program effectively.

Requirement 1.1.1: The program director is available to oversee and advance the residency program.

Indicators

1.1.1.1: The program director has adequate protected time to oversee and advance the residency program consistent with the postgraduate office guidelines and in consideration of the size and complexity of the program.

1.1.1.2: The program director is accessible and responsive to the input, needs, and concerns of residents.

1.1.1.3: The program director is accessible and responsive to the input, needs, and concerns of teachers and members of the residency program committee.

Accreditation decision categories and follow-up

"What does my AC status mean?"

Accreditation Status	Definition	Follow-up
Accredited Program	The residency program has demonstrated acceptable compliance with standards. In practice, this means that the program may have some AFIs, but they are all AFI-RR.	**Next Regular Accreditation Review:** Follow-up occurs at the next regular review established in the accreditation cycle, with expectations of ongoing continuous quality improvement throughout the cycle.
Accredited Program	There is one (or more) significant area(s) for improvement impacting the overall quality of the program, best evaluated via submission of evidence from the program. This means that surveyors have identified at least one AFI-2Y that requires attention before the next regular review.	**Action Plan Outcomes Report (APOR):** Follow-up occurs prior to the next regular accreditation review, aligning with the predictable two-year timeline established in the accreditation cycle. The process to address the area(s) for improvement is at the discretion of the institution; however, evidence submitted via an APOR, must be sufficient to demonstrate compliance with the associated requirement(s), and be limited to information related to the identified area(s) for improvement.

Accreditation Status	Definition	Follow-up
Accredited Program	There is one (or more) significant area(s) for improvement impacting the overall quality of the program, best evaluated by external peer reviewers. Again, this means that surveyors have identified at least one AFI-2Y that requires attention before the next regular review. Factors that may suggest the need for follow-up by external review may include areas for improvement that are: ● persistent ● best evaluated onsite by a reviewer from outside of the university, and/or ● require a specialist from the discipline. Concerns with the program's and/or institution's continuous quality improvement of the residency program may also warrant an external review.	**External Review:** Follow-up occurs prior to the next regular accreditation review, aligning with the predictable two-year timeline established in the accreditation cycle.

Accreditation Status	Definition	Follow-up
Accredited Program on Notice of Intent to Withdraw Accreditation	There are major and/or continuing concerns which call into question the educational environment or integrity of the residency program and its ability to deliver high quality residency education. In practice, this means there are several, often repeat AFIs that require significant work to address within two years, for the program to continue to be accredited. Notice may also be awarded when, despite notifications and reminders, the program has failed to complete and submit the required accreditation follow-up by the deadline.	**External Review:** Follow-up occurs prior to the next regular accreditation review, aligning with the predictable two-year timeline established in the accreditation cycle.
Withdrawal of Accreditation	A program with the status of "notice of intent to withdraw accreditation" has failed to demonstrate acceptable compliance with the general and discipline-specific standards of accreditation. Accreditation may also be withdrawn when, despite notifications and reminders, a program on notice of intent to withdraw accreditation has failed to complete and submit the required accreditation follow-up by the deadline. Institutions may also voluntarily withdraw a residency program at any time.	**Withdrawal of accreditation** is effective immediately; unless there are residents in the residency program, in which case the status becomes effective at the end of the current academic year. An application for new accreditation of a residency program may be submitted following a waiting period of 12 months from the effective date of withdrawal.

Accreditation tips

"I've heard some things..."

Common Myths:

MYTH:A program's accreditation can get taken away the day of the review without a chance to improve.

FACT: A program's accreditation cannot be taken away on the day of the site visit. Only a program already on Notice of Intent to Withdraw Accreditation may lose accreditation after review by the Residency Accreditation Committee.

MYTH: Accreditation is a process that only takes place every 8 years when the college comes for a site visit.

FACT: A follow-up next regular accreditation review does not imply that a residency program can go eight years without interacting with the accreditation system: standards detail expectations of continuous quality improvement efforts between accreditation reviews; programs may receive data integration information throughout the cycle which may require action; and programs are expected to address any areas for improvement identified at the time of the regular accreditation review. This means that your program will maintain evidence of meeting the standards, and this ongoing CQI will make the next accreditation cycle much less work!

MYTH: If a resident representative is present at my onsite accreditation visit, it means that there has been a problem flagged within my program.

FACT: A resident representative at an accreditation visit does not mean there has been a problem identified within your program. Resident representatives self-select which programs they would like to visit and they are encouraged to participate in the accreditation process for a variety of programs.

MYTH: Accreditation is so labour-intensive, most Program Directors retire immediately afterwards.

FACT: While accreditation can be a lot of work, in many cases it can be a 'labour of love', resulting in recognition of great work, as well as helpful suggestions and a plan for improvement going forward. It's true that some PDs turn over after accreditation, but no more than any other year – the Program Director role is demanding, whether it is accreditation time or not!

Common Areas for Improvement (AFI) and their associated accreditation requirements

Continuous Quality Improvement: process to review and improve the resident program (9.1.1); data availability for identification of strengths; action plans for areas of improvement (9.1.3).

- *Teaching Quality Improvement in Residency Education: http://www.royalcollege.ca/rcsite/documents/cbd/teaching-quality-improvement-in-residency-education-e.pdf (http://www.royalcollege.ca/rcsite/documents/cbd/teaching-quality-improvement-in-residency-education-e.pdf)*
- *The art and science of high-quality health care: Ten principles that fuel quality improvement (RCPSC): http://www.royalcollege.ca/rcsite/documents/health-policy/quality-improvement-e.pdf (http://www.royalcollege.ca/rcsite/documents/health-policy/quality-improvement-e.pdf)*

Educational Plan: program competencies and objectives guide educational experiences, providing increasing responsibility (3.2.1, 3.2.4); comprehensive curriculum plan addressing CanMEDS/CanMEDS-FM (3.22)

- *Educational Design: A CanMEDS guide for the health professions: http://www.royalcollege.ca/rcsite/documents/canmeds/educational-design-preview-e.pdf (http://www.royalcollege.ca/rcsite/documents/canmeds/educational-design-preview-e.pdf)*
- *Mapping your program's curriculum: http://www.royalcollege.ca/rcsite/cbd/implementation/cbd-map-curriculum-e (http://www.royalcollege.ca/rcsite/cbd/implementation/cbd-map-curriculum-e)*

Program of Assessment: planned, defined, and implemented system of assessment (3.4.1); regular review of resident performance and progression (3.4.2)

- *Programmatic assessment: From assessment of learning to assessment for learning, L. Schuwirth & C. Van der Vleuten: https://www.tandfonline.com/doi/full/10.3109/0142159X.2011.565828 (https://www.tandfonline.com/doi/full/10.3109/0142159X.2011.565828)*

Teaching and Learning: safe learning environment with promotion of wellness (5.1.2, 5.1.3); learning needs guide teaching (3.3.1); regular assessment of clinical teachers; faculty development support (7.1.1)

- *Creating positive work environment (RCPSC): http://www.royalcollege.ca/rcsite/about/creating-positive-work-environment-e (http://www.royalcollege.ca/rcsite/about/creating-positive-work-environment-e)*

- *Faculty development resources (RCPSC): http://www.royalcollege.ca/rcsite/cbd/cbd-faculty-development-e (http://www.royalcollege.ca/rcsite/cbd/cbd-faculty-development-e)*
- *https://www.cfpc.ca/CFPC/media/Resources/Education/EDU-EmergingTopicsBulletin-EN-2021.pdf (https://www.cfpc.ca/CFPC/media/Resources/Education/EDU-EmergingTopicsBulletin-EN-2021.pdf)*
- *https://www.cmaj.ca/content/193/3/E101 (https://www.cmaj.ca/content/193/3/E101)*
- *https://medschool.ucsf.edu/differences-matter/action-groups/focus-area-3 (https://medschool.ucsf.edu/differences-matter/action-groups/focus-area-3)*

Program Support: protected time and resources for Program Director to oversee and advance the program (1.1.1, 1.1.2); adequate financial, physical, and technical resources (4.1.4)

- *Competence by Design for Program Directors: A Practical Resource (RCPSC): http://www.royalcollege.ca/mssites/cbdpd/en/content/index.html#/ (http://www.royalcollege.ca/mssites/cbdpd/en/content/index.html#/)*

Further reading

- CanERA: Website contains details of the accreditation process, standards, online modules, and frequently asked questions. This should be a go-to resource leading up to accreditation.http://www.canera.ca/canrac/home-e (http://www.canera.ca/canrac/home-e)
- General Standards of Accreditation for Institutions with Residency Programshttp://www.canera.ca/canrac/canrac/documents/general-standards-accreditation-for-institutions-with-residency-programs-e.pdf (http://www.canera.ca/canrac/canrac/documents/general-standards-accreditation-for-institutions-with-residency-programs-e.pdf)
- General Standards of Accreditation for Residency Programshttp://www.canera.ca/canrac/canrac/documents/general-standards-accreditation-for-residency-programs-e.pdf (http://www.canera.ca/canrac/canrac/documents/general-standards-accreditation-for-residency-programs-e.pdf)
- Discipline-specific Standards of Accreditation for Royal College Disciplineshttp://www.royalcollege.ca/rcsite/ibd-search-e (http://www.royalcollege.ca/rcsite/ibd-search-e)
- Triple C Competency-based Curriculum Toolkit: multiple reports, publications, and associated resources provided to explain the CFPC Triple C curriculumhttps://www.cfpc.ca/TripleCToolkit/ (https://www.cfpc.ca/TripleCToolkit/)
- Standards of Accreditation for Residency Programs in Family Medicine (“Red Book”)http://www.cfpc.ca/projectassets/templates/category.aspx?id=11861&langType=4105

(http://www.cfpc.ca/projectassets/templates/category.aspx?id=11861&langType=4105)

References

1. International Health Professions Accreditation Outcomes Consortium (IHPAOC); publication pending 2020, BMC Med Ed.