Patient Involvement in Teaching and Assessing Entrustable Professional Activities of Competence by Design

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Abstract

Background: Active patient involvement (i.e., patient involvement in teaching, assessment, or in roles at institutional levels) in medical education has many benefits for learners. It brings realism to education, helps learners retain information, helps learners reflect on their interactions with patients, and improves learners' interpersonal and communication skills. Furthermore, the Royal College of Physicians and Surgeons of Canada (i.e., RCPSC; the regulating body for postgraduate medical education) endorses patient involvement in assessing residents. However, the extent of patient involvement in postgraduate medical education (PGME) in Canada is unknown. This study explores this phenomenon, namely, how (or if) patients are indicated and involved in entrustable professional activities (EPAs; sets of skills and competencies that are entrusted to a professional and compose medical education curricula) of Competence by Design (CBD), a Canadian hybrid approach of competency-based medical education. Specifically, it explores (a) how patients are indicated in a sample of RCPSC EPA documents; (b) how (or if) those involved with EPAs envisioned patients in the teaching and assessment of EPAs, during EPA creation; and (c) how (or if) patients are (or could/should be) involved in the teaching and assessment of EPAs. This study adds to the limited knowledge available on patient involvement in PGME in Canada. It illuminates medical educators' perceptions of patient involvement in medical education and barriers to patient involvement that must be overcome for it to become reality in the teaching and assessment of EPAs and CBD overall. **Methods:** I conducted this study in two parts, using qualitative methods. Part 1 involved analyzing a sample of RCPSC EPA documents for how patients are indicated in them. Part 2 involved semi-structured interviews with those involved with EPAs to explore (a) how (or if) patients were discussed in the teaching and assessment of EPAs, during creation; (b) how (or if) patients could (or should) be involved in the teaching and assessment of EPAs; and (c) barriers to patient involvement in the teaching and assessment of EPAs. **Findings:** The findings suggest that patients are indicated in EPA documents passively compared to physicians, which minimizes opportunities for active patient involvement in the teaching and assessment of EPAs. Interviews with those involved with EPAs suggested that patients were discussed during EPA creation in terms of how patients could assess EPAs, not in terms of how patients could teach them. Those involved with EPAs believed that patients should formatively assess non-technical skills of EPAs (i.e., the cognitive, social, and personal skills that work together to contribute to quality health care and effective physician-patient interactions; Flin et al., 2008). They also believed that patients should contribute to the formative assessment of EPAs and that patients could teach non-technical aspects of EPAs through storytelling. However, participants recognized that patient involvement in the teaching and assessment of EPAs is limited due to barriers, including finding the ‘right’ patient, lack of time, risk of breaking patient anonymity, and technology. Findings of this study provide recommendations on how to improve patient involvement in the teaching and assessment of EPAs.

Keywords: patient involvement, competence by design, medical education, entrustable professional activities, EPA teaching, EPA assessment

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Dedicated to patients and caregivers who want a voice in the future of medical education

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List of Acronyms

In order of appearance:

HPE: Health Professions Education

RCPSC: Royal College of Physicians and Surgeons of Canada

PGME: Postgraduate Graduate Medical Education

CBME: Competency-Based Medical Education

CBD: Competence by Design

EPA(s): Entrustable Professional Activity(ies)

MSF: Multisource Feedback

HCP(s): Healthcare Provider(s)

PDs: Program Directors

REB: Research Ethics Board

Gen. Surg: General Surgery

ANESTH: Anesthesiology

EMERG: Emergency Medicine

GIM: General Internal Medicine

OBGYN: Obstetrics and Gynecology

PM&R: Physical Medicine and Rehabilitation

Rad. Onc.: Radiation Oncology

e-system(s): Electronic System(s)

Chapter 1: Introduction

Description of Problem

Over 100 years ago, William Osler, a Canadian physician and founder of John Hopkins Hospital stated, “it is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself” (cited in Towle & Godolphin, 2011, p. 496). Although Osler was likely referring to patients as teaching ‘resources’ than autonomous teachers, his statement was seminal to the notion that patients can (and should) be involved in medical education. Today, medical educators and researchers in heath professions education (HPE), including medical education, have acknowledged that patient involvement should be *active* (for example, Bennett & Baikie, 2003; Rees et al., 2007; Stacy & Spencer, 1999; Towle & Godolphin, 2015; Wykurz & Kelly, 2002). Active patient involvement means that patients are routinely “engaged in teaching, assessment or curriculum development because of their expertise and experiences of health, illness or disability” (Towle et al., 2010, p. 65), as opposed to *passively* involved, where patients do not have autonomy to teach, assess, and are subjects (or materials) *for* teaching.

Active patient involvement in medical education has many benefits for learners. For example, medical students and residents (i.e., physicians who have received medical degrees and are doing further training) have explained that patients’ stories of illness and healthcare brings realism to their education, makes their education more enjoyable, helps them reflect on and understand the psychosocial aspects of illness and overall, improves their patient-and family-centred care (i.e., care that guides healthcare professionals in providing patients and families with individualized, holistic and compassionate care; Agrawal et al., 2016; Eady & Moreau, 2018; Oswald et al., 2014; Thangarasu et al., 2021). Furthermore, patient feedback has helped learners improve their communication and interpersonal skills, compassion and empathy in care and clinical interactions with patients (Abadel & Hattab, 2014; Langer et al., 2016; Moreau et al., 2016).

Despite benefits, active patient involvement in medical education is lacking. Recent literature reviews suggest that patient involvement in medical education is generally comprised of storytelling of experiences with illness and healthcare and acting in simulations (Dijk et al., 2020; Gordon et al., 2020; Khalife et al., 2022). These roles do not provide patients with autonomy to teach in meaningful ways to them (Towle et al., 2010). With this in mind, Towle et al. (2016) developed The Vancouver Statement, which highlights the present state of patient involvement in HPE and proposes recommendations for increasing it. They recommend, among other things, that educational institutions prioritize patient involvement, promote sustained involvement opportunities for patients, increase the diversity of those advocating for patient involvement and invest in research opportunities to explore patient involvement in HPE, including medical education.

The recent reform to Canadian medical curricula is an opportune time to consider how active patient involvement can be better implemented in CBD. In 2017, the Royal College of Physicians and Surgeons of Canada (RCPSC), the regulating body for postgraduate medical education (PGME), mandated a phased transition to a Competency-Based Medical Education (CBME) model, known as Competency by Design (CBD). Since July 1, 2023, all medical specialties to make the transition have done so (Royal College of Physicians and Surgeons of Canada [RCPSC], 2024c). The transition to CBD is in response to public calls for improved safety and accountability in healthcare (Frank, Mungroo, et al., 2010). Learning under the CBD model requires that residents can *do* the skills required of them in their profession, rather than simply *know* about them (Miller, 1990). By focusing on competencies, rather than time and processes, (as was the case in traditional curricula), CBD aims to 'catch' residents who are struggling earlier in their education, offer remedial actions that help them succeed, and prevent them from graduating with limited (or poor) skills and capabilities (Frank et al., 2017).

Each speciality that has transitioned to CBD has developed its own entrustable professional activities (EPAs) or daily professional activities deemed important to a profession (ten Cate, 2013). These EPAs are composed of competencies and milestones that specialty experts have decided act as markers for what medical educators must teach and assess. Residents are rigorously assessed on EPAs *programmatically*, meaning that they are assessed multiple times, by many assessors, and using multiple methods (Iobst & Holmboe, 2020). Competence by Design prides itself in offering residents routine, low-stake formative feedback that informs them of their strengths and weaknesses in learning and helps them tailor their education to their own needs.

Literature suggests that patients can be involved in the teaching and assessment of competencies and milestones of EPAs (van der Vleuten et al., 2010; Yang et al., 2023). For example, the RCPSC acknowledges that patients can provide feedback on residents' communication and professional skills and be involved in multisource feedback (MSF), a commonly used assessment method for EPAs (Bandiera et al., 2006). The RCPSC also endorses a Charter that outlines foundational principles for effective implementation of CBME, where it is recognized that patients' perspectives are critical in defining competencies taught in EPAs and that patients' constructive feedback on residents' skills is imperative to improved learning (Carraccio et al., 2016). Faculty, residents, and Canadian residency program directors (PDs; i.e., those who oversee the preparation and implementation of CBD) have also acknowledged that patients could assess residents' communication and interpersonal skills, if provided such opportunities (Moreau et al., 2019; Moreau et al., 2016).

However, the extent of patient involvement in CBD unknown. A possible reason for this uncertainty is that CBD is new. The prioritization of research on CBD has been on its successful implementation, rather than on patient involvement in it (Carraccio et al., 2016; Caverzagie et al., 2017; Iobst & Holmboe, 2020; Skinner et al., 2017). However, inferences can be made that patient involvement in CBD, specifically in the teaching and assessment of EPAs, is lacking and needs improvement because (a) research has suggested that most Canadian residency PDs do not plan to involve patients in the assessment of EPAs (Moreau et al., 2019); (b) patients are rarely named as possible assessors in EPA documents (e.g. as suggested by Part 1 of this study); and (c) the 2015 CanMEDS Physician Competency Framework (Frank et al., 2015), which informs medical curricula, does not refer to patients in ways that suggest that patient involvement in medical education occurs (Adam et al., 2023).

To make relevant and impactful recommendations on how to improve patient involvement in teaching and assessing EPAs in CBD, it is necessary to explore the topic in the specific and situational contexts of the educational model (Regan de Bere & Nunn, 2016). Thus, the focus of this study is on patient involvement in CBD. Understanding how (or if) patients are involved in the teaching and assessment of EPAs can inform the development of teaching and assessment strategies in CBD, and its overall planning and implementation efforts (Moreau et al., 2019). It can also inform improvements to residents' learning opportunities and how residents progress in CBD (Rowland et al., 2019; van der Vleuten et al., 2010; Yang et al., 2023). Therefore, in my two-part qualitative study, I aim to elucidate how patients are indicated in EPA documents; how (or if) patients were envisioned in the teaching and assessment of EPAs, during creation; and how those involved with EPAs believe patients can be involved in the teaching and assessment of EPAs. My findings will add to the limited body of empirical research that exists on patient involvement in CBD and illuminate how active patient involvement in CBD can be improved.

Contributions to the Field

Patient involvement in medical education can enhance the teaching and assessment of physicians' competencies that address the public call for patient-centred, accountable and quality care. Furthermore, it helps the medical profession meet demands of governing bodies, who state that physicians must learn to "strive to meet the needs of the society and patients [they] serve" (Frank, 2005, p. iv). However, there is a lack of guiding frameworks for educators on how to implement patient involvement in medical education models, such as CBD. This study is, to my knowledge, the first to explore (a) how patients are represented in EPA documents; (b) how (or if) patients were conceptualized as teachers and/or assessors of EPAs, during creation; and (c) how (or if) those involved with EPAs involve patients in the teaching and assessment of EPAs. By exploring these topics and alignment with one another, I will extend knowledge on how to improve patient involvement in CBD in several ways.

First, we know very little about how patients are involved in PGME, as most patient involvement in medical education occurs at undergraduate levels (Gordon et al., 2020) . This study will provide insights into how patient representation in EPAs can be improved in support of increased opportunities for active patient involvement in teaching and assessment in PGME. Second, to my knowledge, this study is the first to explore how (or if) those involved with EPAs thought about patient involvement in EPAs, during EPA creation. Understanding this phenomenon can illuminate barriers and challenges to patient involvement in the teaching and assessment of EPAs, as well as possible solutions. Third, by exploring beliefs of those involved with EPAs about patient involvement in EPAs, this study will contribute to our limited knowledge of how (or if) patient involvement is occurring in CBD and will inform ways to improve it. More broadly, this study will contribute to improving patient-centred care by suggesting ways to incorporate patients' voices into PGME.

The findings from this study will also act as a foundation to building further research on the topic of patient involvement in CBD. By illuminating challenges to patient involvement in the teaching and assessment of EPAs, this study will inform other studies aimed at (a) developing patient-oriented EPAs, milestones and assessment forms; (b) exploring solutions to barriers of patient involvement in CBD; (c) exploring how to indicate patients as partners in medical curricula; and (d) developing frameworks and strategies for patient involvement in the teaching and assessment of EPAs.

Overview of the Thesis

This thesis includes seven chapters. In Chapter 1, I introduced the problem under study, gaps in the literature that justify the need for the present study, and its contributions to the field of patient involvement in medical education. Chapter 2 provides definitions of key concepts of CBME and presents a review of the literature on patient involvement in HPE, as well as the features and challenges of patient involvement in CBME and CBD. It also illustrates the interconnectedness between topics of my literature review in my conceptual framework and introduces the research questions that guide this study. Chapter 3 describes the philosophical underpinnings of this study, my position in it, its two-part methodology and ethical considerations. Chapter 4 presents the findings from Part 1 of this study, where I analyzed eight specialty EPA documents to identify how patients are (or are not) indicated in EPAs and milestones. Chapter 5 presents the findings from interviews with those involved with EPAs, where I explored (a) how (or if) patients were envisioned in the teaching and assessment of EPAs, during EPA creation; (b) beliefs of those involved with EPAs about how patients could (or should) be involved in the teaching and assessment of EPAs; and (c) the perceptions of those involved with EPAs about barriers to patient involvement in the teaching and assessment of EPAs. Chapter 6 discusses and integrates the key findings from the two parts of this study and connects the findings to relevant published empirical research. It is through this discussion that improvements needed for patient involvement in the teaching and assessment of EPAs emerge. Finally, chapter 7 discusses this study’s limitations, areas in need of further research and concludes with final remarks about patient involvement in CBD.

Chapter 2: Literature Review and Conceptual Framework

In chapter 2, I review and summarize relevant literature on key concepts of this study. First, I provide background information about patient involvement in HPE, including medical education. Second, I provide an overview of CBME and CBD, highlighting the difference between them. Third, I describe patient involvement in CBME and CBD. I begin the chapter by defining key concepts of CBME and CBD, including EPA, milestones, competency and competence. I also define ‘patient’ in the context of this study. I conclude the chapter by summarizing the findings from the literature, presenting my conceptual framework, and justifying the need for this study.

Key Concepts of Competency-Based Medical Education (CBME) and Competence by Design (CBD)

Entrustable Professional Activity (EPA)

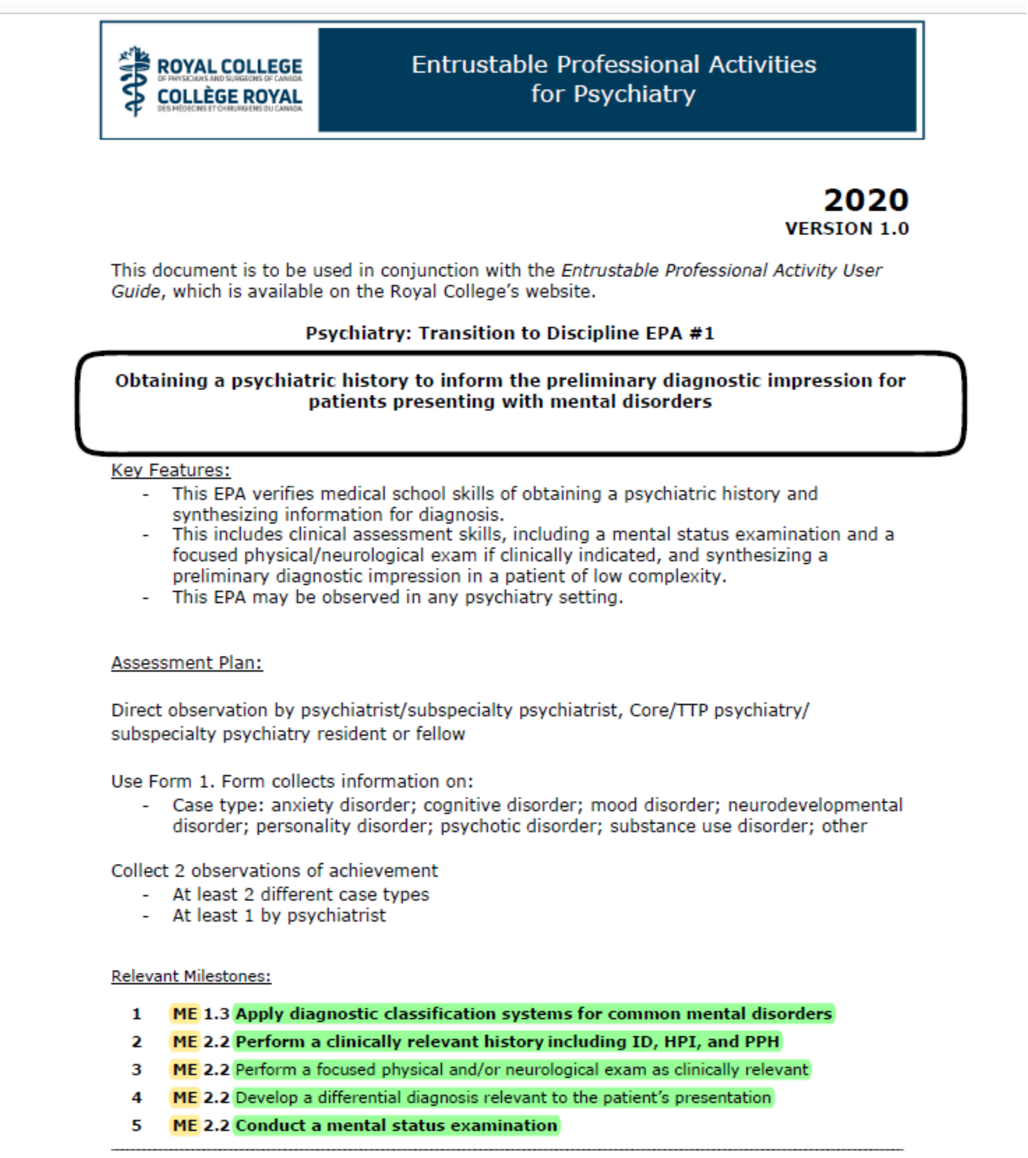
An EPA is a task and work-based assessment that has been deemed important to a profession (ten Cate & Taylor, 2021). For example, the EPA, *obtain a psychiatric history to inform the preliminary diagnostic impression for patients presenting with mental disorders* (Refer to *Figure 1*), has been deemed by medical experts as an essential task in the field of psychiatry.

Milestones

Milestones are observable and measurable ‘parts’ or ‘subunits’ of an EPA (Carraccio et al., 2017; ten Cate, 2013). They highlight what a resident must do (e.g., the knowledge, attitudes, and skills they need) to complete an EPA (Holmboe et al., 2010). For example, *Figure 1* illustrates (See green highlight) the milestones that residents must complete in order to accomplish the EPA.

Figure 1

Example of an EPA from the RCPSC EPA Document for Psychiatry (2020)



ROYAL COLLEGE
OF PHYSICIANS AND SURGEONS OF CANADA
COLLÈGE ROYAL
DES MÉDECINS ET CHIRURGIENS DU CANADA

Entrustable Professional Activities
for Psychiatry

2020
VERSION 1.0

This document is to be used in conjunction with the *Entrustable Professional Activity User Guide*, which is available on the Royal College's website.

Psychiatry: Transition to Discipline EPA #1

Obtaining a psychiatric history to inform the preliminary diagnostic impression for patients presenting with mental disorders

Key Features:

- This EPA verifies medical school skills of obtaining a psychiatric history and synthesizing information for diagnosis.
- This includes clinical assessment skills, including a mental status examination and a focused physical/neurological exam if clinically indicated, and synthesizing a preliminary diagnostic impression in a patient of low complexity.
- This EPA may be observed in any psychiatry setting.

Assessment Plan:

Direct observation by psychiatrist/subspecialty psychiatrist, Core/TTP psychiatry/ subspecialty psychiatry resident or fellow

Use Form 1. Form collects information on:

- Case type: anxiety disorder; cognitive disorder; mood disorder; neurodevelopmental disorder; personality disorder; psychotic disorder; substance use disorder; other

Collect 2 observations of achievement

- At least 2 different case types
- At least 1 by psychiatrist

Relevant Milestones:

1 **ME 1.3 Apply diagnostic classification systems for common mental disorders**
2 **ME 2.2 Perform a clinically relevant history including ID, HPI, and PPH**
3 **ME 2.2** Perform a focused physical and/or neurological exam as clinically relevant
4 **ME 2.2** Develop a differential diagnosis relevant to the patient's presentation
5 **ME 2.2 Conduct a mental status examination**

Competency

A competency is a "general attribute" of a physician (El-Haddad et al., 2016, p. 1007). In the context of EPAs, each milestone is defined by one competency. As shown in *Figure 1* (See yellow highlight), all milestones are associated with the Medical Expert Role of the CanMEDS Competency Framework (Frank et al., 2015). The other six 2015 CanMEDS competencies include Communicator, Collaborator, Leader, Health Advocate, Scholar and Professional.

Competence

Competence is a level of skill acquisition, between novice and expert (Dreyfus, 2004). In the context of performing EPAs, competence implies a (high) standard of performance, safety, and independence in practice (Dijksterhuis et al., 2009). Residents who are deemed 'competent' are able to independently perform an EPA with ease in settings and circumstances in which they were trained (Dijksterhuis et al., 2009; Dreyfus, 2004).

Patient

In this study, I refer to the term 'patient' as a person who has authentic (long- or short-term) experiences of illness and the healthcare system. I define patients in this way because patients' authentic experiences and perspectives of what makes a 'good' physician is important to the teaching and assessment of EPAs (Towle et al., 2010; van der Vleuten & Schuwirth, 2005).

Patient Involvement in Health Professions Education (HPE)

Active patient involvement in health professions education (HPE) indicates that patients are in routine and sustained positions as assessors, teachers, and/or curriculum designers in HPE, and are awarded a level of autonomy in these positions (Towle et al., 2010). Patients' first-hand knowledge of illness and healthcare allows them to impart expert opinions and perspectives about HPE learners' behaviours, attitudes, and skills, as well as inform what learners need to know to become 'good' practitioners. Patient involvement in HPE has many benefits for patients and learners, however there are also many challenges that prevent it from happening.

Benefits of Patient Involvement in HPE

Patient involvement in HPE improves learners' educational experiences because it brings realism to their education, helps them understand the psychosocial aspects of illness and strengthens their interpersonal skills (Gordon et al., 2020; Jha et al., 2009b; Towle et al., 2014). For example, learners have explained that patient involvement allows them to examine patients with real symptoms and receive authentic feedback, which, when positive, helps them validate for themselves that they are 'doing something right' and increases their confidence in learning (Bideau et al., 2006; Bokken et al., 2010; Jha et al., 2009b). Learners have also felt more relaxed with patients as educators, compared to faculty, because patients are inviting, engaging, and allow them to ask ‘stupid’ questions (Henriksen & Ringsted, 2014; Raj et al., 2006). The realism that patient involvement brings to HPE has also helped learners apply textbook knowledge and, ultimately, recall, retain and take classroom learning more seriously (Bozonelou et al., 2021; Henriksen & Ringsted, 2014).

As storytellers, patients have helped learners reflect on psychosocial challenges that patients may face with illness, and how they can act to better mitigate these (Cheng & Towle, 2017; Dijk et al., 2020; Fagan et al., 2015). Patients (and caregivers) who have role-played scenarios of how to deliver bad news or have difficult discussions with patients have also taught learners how to address patients’ emotions with empathy and compassion (Snaman et al., 2017). Learners appreciate patient involvement in HPE for its realism, ability to spark self-reflection in learning, and overall capacity to strengthen their educational experiences (Cullen et al., 2022; de Groot et al., 2020).

Patients also benefit from being involved in HPE. Most importantly, patients want to be involved (Adam et al., 2021). Patients have explained that involvement in HPE helps them understand and accept their illness, engage in shared-decision-making processes with their healthcare providers, feel like they are giving back to future healthcare providers, and overall, is a rewarding experience (Agrawal et al., 2016; Cullen et al., 2022; Rees et al., 2007; Romme et al., 2022; Towle et al., 2014; Watts et al., 2015). They often feel empowered by being involved in HPE because they come to understand the patient-healthcare provider relationships, gain confidence in advocating for themselves in healthcare (Henriksen & Ringsted, 2011; Jha et al., 2015; Rees et al., 2007; Romme et al., 2022), and feel heard and respected by healthcare providers (HCPs; Kidd et al., 2014; Muir & Laxton, 2012).

Overall, the benefits of patient involvement in HPE are based on the perspectives and experiences of learners, patients, and educators. While quantitative ‘evidence’ of the benefits of patient involvement to educational outcomes is lacking, it is difficult to deny from the perspectives of those who have experienced patient involvement in HPE that it is anything but beneficial to the improvement of learners’ interpersonal skills and approaches to psychosocial care.

Challenges of Implementing Patient Involvement in HPE

Active patient involvement in HPE is lacking due to barriers such as a lack of practical frameworks for patient involvement, concerns of patient representation, lack of time and buy-in from faculty, and power-differentials between patients and HCPs. If patients are involved in HPE, they are usually limited to one-off events (Gordon et al., 2020; Towle et al., 2010). Rowland and colleagues. (2019) suggest that patient involvement in HPE is not active nor sustained because faculty do not know how to conceptualize patients as educators.

Although theoretical frameworks exist to guide faculty in implementing patient involvement in HPE, these frameworks lack practicality (Regan de Bere & Nunn, 2016; Stacey et al., 2012). For example, Towle and colleague's (2010) *Taxonomy of Patient Involvement* suggests that patients should receive training to be storytellers, but it does not provide practical guidance on how faculty can provide such training. Similarly, the Cambridge Framework suggests attributes of patient-educators in various educational contexts and settings (Spencer et al., 2000), but it does not specify the resources and support needed for faculty to implement patient involvement. Bleakley & Bligh (2008) have also suggested a theoretical framework for patient-led teaching that focuses on establishing open dialogues between patients, learners and faculty, but the framework lacks practical solutions on how to establish such dialogue. Overall, the lack of practicality of existing frameworks on patient involvement in HPE leaves faculty 'in the dark', unable to establish the tools and resources needed to streamline and normalize it.

Faculty have expressed that the lack of practical frameworks for patient involvement in HPE, especially at institutional and local levels, increases the time and energy they must expend in planning and implementing patient involvement, ultimately deterring them from doing it at all (Cullen et al., 2022; Felton & Stickley, 2004). For example, it has left them uncertain about how (or if) to train patients to be educators (Rees et al., 2007; Repper & Breeze, 2007; Ward & Benbow, 2016). While some educators suggest that training can be patient-led (Agrawal et al., 2016; Cheng & Towle, 2017; Muir & Laxton, 2012), most patient training is conducted by faculty (Dijk et al., 2020; Jha et al., 2009a). Similarly, it has been suggested that patients should design the content and structure of training so that it is relevant to patient-educators (Eijkelboom et al., 2023; Naylor et al., 2015; Towle & Godolphin, 2015), but most training program are designed by faculty. Overall, there lacks clear protocols or frameworks to guide faculty in implementing patient involvement in HPE.

Another challenge is the concern from faculty regarding recruitment, namely which patients should be involved (Eijkelboom et al., 2023; Rowland & Kumagai, 2018). While faculty members have acknowledged that including diverse patient perspectives in HPE is important, they feel uncertain about how to do this. They worry about selecting patients from small, homogeneous and ‘self-selecting’ groups (Rees et al., 2007; Romme et al., 2020), despite it being argued that doing so may be appropriate if the patient population fits the purpose of the educational initiative (Eijkelboom et al., 2023; Lefkowitz et al., 2022; Rowland & Kumagai, 2018). Rowland & Kumagai (2018) explain that diversity in patient selection is less important in situations where the educational goal is to have learners reflect on patients’ experiences. Yet, the goal of curricula design may require more viewpoints and a more comprehensive recruitment approach. Nevertheless, determining patient representation in HPE requires extra consideration from faculty, which takes time and can deter them involving patients in HPE (Eijkelboom et al., 2023; Rowland & Kumagai, 2018).

Lack of time for patient involvement in HPE is a significant challenge to its implementation. Faculty do not have time to plan educational initiatives that involve patients, recruit patients, build partnerships with patient-organizations, and prepare patients for educator roles (Agrawal et al., 2016; de Groot et al., 2020; Morgan & Jones, 2009; Rees et al., 2007). Even when patients are involved in HPE, learners and faculty have acknowledged that there is not enough protected time to engage meaningfully with patients, especially in busy clinical environments (Agrawal et al., 2016; Rabski et al., 2020; Rees et al., 2007). How much extra time is needed to involve patients in HPE depends on the educational initiative itself. However, literature supports that time is a factor in need of address if faculty and learners are to be encouraged to actively involve patients in HPE.

To obtain more time for patient involvement in HPE, there must be ‘buy-in’ from educational institutions (Gordon et al., 2020; Towle & Godolphin, 2011). However, educational institutions are less likely to invest in an initiative without ‘evidence’ that the initiative works, in this case that patient involvement in HPE improves learners’ and patients outcomes (Gordon et al., 2020). Unfortunately, few studies exist that objectively examine changes in learners’ behaviours and patient outcomes due to patient involvement in HPE. Instead, studies tend to be qualitative, focusing on learners’ perceptions of their attitudes and behaviours in patient care (Bing-You et al., 2017; Cheng & Towle, 2017; Henriksen & Ringsted, 2014). Qualitative measures do little to sway educational institutions and funding agencies to commit time and money to support patient involvement in HPE (Bideau et al., 2006; Gordon et al., 2020; Jha et al., 2010; Regan de Bere & Nunn, 2016).

Finally, power-differentials between patients and HCPs make patient involvement in HPE difficult. Patients have expressed that they do not want to be involved in HPE if they perceive that their contributions are devalued by learners (Adam et al., 2021; Lauckner et al., 2012). Unfortunately, HCPs have questioned the legitimacy of patients' contributions to HPE because they do not view patients as 'experts' (de Groot et al., 2020; Henriksen & Ringsted, 2014; Rees et al., 2007). Learners have also argued that patients cannot teach or assess clinical skills because they lack expertise (de Groot et al., 2020; Henriksen & Ringsted, 2014; Rees et al., 2007).

It has been suggested that power-differentials are especially apparent between patients and physicians because the culture of medical education is rooted in paternalistic views of 'doctor knows best' (Bleakley & Bligh, 2008). Medical students and learners have feared being vulnerable in front of patients, believing that this will endanger their professional identity (Agrawal et al., 2016; Henriksen & Ringsted, 2011, 2014). Simple ways to dissolve power differentials between patients and physicians have been suggested, including having faculty role-model respect for patients as educators; fostering a culture of open dialogue between patients, learners, and faculty in medical education; and teaching faculty and learners about how to support patient involvement in HPE (de Groot et al., 2020; Eijkelboom et al., 2023; Repper & Breeze, 2007; Romme et al., 2020). Nonetheless, literature suggests that, in medical education, patients are expected to fulfill learners' educational needs, meet certain criteria to be educators, and teach in structured ways (de Groot et al., 2020; Towle et al., 2010). They are not provided autonomy in teaching, nor respected as partners in medical education.

How Patients are (or could be) involved in HPE

If involved in HPE, patients are often storytellers of their experiences with illness and healthcare (Cullen et al., 2022; Gordon et al., 2020; Towle et al., 2010). In this capacity, patients are thought of as 'teachers' because their stories 'teach' learners to reflect on their own behaviours and attitudes in care (Agrawal et al., 2016; Eady & Moreau, 2018; Oswald et al., 2014; Thangarasu et al., 2021), yet they are not awarded the same autonomy as faculty who teach. As storytellers, patients are usually invited to *one-off events* (Gordon et al., 2020; Towle et al., 2010). Faculty remain in control of the structure and content of patient teaching, ensuring that it complements their own.

Patients have also been involved in the assessment of HPE learners' interpersonal skills, usually to give feedback either verbally or using standardized tools (Khalife et al., 2022; Moreau et al., 2019; Naylor et al., 2015). They are well positioned to give this kind of feedback because they are the only ones who truly know how a learner made them *feel* during an interaction. While it has been suggested that patients can be involved in the assessment of clinical skills, this is usually in the context of giving feedback about their subjective experiences of an exam, such as whether the learner caused them pain or took their medical concerns seriously (Byrd et al., 2020; Chisholm & Askham, 2006; Khalife et al., 2022). If involved in assessment, patients usually provide informal, low-stakes, formative feedback(Bing-You et al., 2017; Ward & Benbow, 2016).

Rarely are patients involved in HPE at institutional levels, such as in curriculum design or on admission boards (Gordon et al., 2020; Towle & Godolphin, 2015). However, literature suggests that patients could be partners in these roles, if given opportunities. For example, patients have used their experiential knowledge of illness and healthcare to advise faculty in course and training material, specifically about psychosocial aspects of care (Agrawal et al., 2016; Repper & Breeze, 2007). Also, patients have interacted with medical school candidates during admissions processes and have informed faculty on which students show patient-centred qualities (Sims & Lynch, 2016). Furthermore, patients themselves have expressed that they *want* to be involved in reviewing, and adding to, the content of HPE curricula, as well as have formal roles on admission boards (Adam et al., 2021).

Overall, patients have limited active roles in HPE (Cullen et al., 2022; Gordon et al., 2020; Towle et al., 2010). However, this conclusion is based on the fact that most literature on patient involvement focuses on undergraduate medical education (Dijk et al., 2020). Thus, further research into patient involvement in postgraduate medical education is needed (Agrawal et al., 2016).

Competency-Based Medical Education (CBME): What is it?

Competency-based medical education has taken rise in the past decade, in response to public calls for improved social accountability and safety in healthcare (Frank et al., 2017). It is an educational approach that has been adopted in PGME and focuses on outcomes, rather than time. It aims to ensure that learners can *perform,* rather than just *know about,* skills required of them in their profession (Miller, 1990).

Members of the International Competency-Based Medical Education Committee (Frank, Mungroo, et al., 2010) created the first working definition of CBME:

> *an approach to preparing physicians for practice that is fundamentally* ***oriented to graduate outcome*** *abilities and* ***organized around competencies*** *derived from an analysis of societal and patient needs. It* ***deemphasizes time****-based training and promises greater accountability, flexibility, and* ***learner-centredness*** (p. 636).

The definition illuminates four features of CBME: predefined outcomes, time-variability, organization around competencies and student-centred learning.

Predefined outcomes are derived from Competency Frameworks, such as CanMEDS (in Canada) or the Accreditation Council for Graduate Medical Education Outcomes Project (in the United States), that reflect public views of attributes that make ‘good’ physicians (Frank, Snell, et al., 2010). For example, the 2015 CanMEDS Framework includes seven competencies (or physician Roles) that residents must show during their education (Frank et al., 2015). These include Medical Expert, Communicator, Collaborator, Leader, Professional, Health Advocate, and Scholar. They form the backbone of the observable and measurable milestones of RCPSC EPAs (ten Cate, 2013). Having predefined outcomes that are reflected within EPA milestones helps to standardize expectations of residents and ensure that all physicians, regardless of specialty or medical school, are able to safely meet society's needs and expectations in care (Carraccio et al., 2016).

Time-variability in CBME means that residents no longer graduate from a residency program after a pre-set time. Instead, competence defines their progression (Frank, Snell, et al., 2010). The goal of time-variability is to emphasize to the public that graduates of medical programs are truly ready for safe and independent practice. However, the shift away from traditional time-based education is challenging because it requires structural, organizational and cultural reform of medical education (Caverzagie et al., 2017; Ferguson et al., 2017; Schumacher et al., 2021). Reform needed to medical education is further discussed in the *Challenges to CBME Implementation* section of this chapter.

Competency-based medical education is learner-centred. Residents drive their own progress and assessment schedules and direct their own learning goals (Frank, Snell, et al., 2010; Schumacher et al., 2021). They can choose which milestones to work on at any one time and when to ask supervisors to assess them. Furthermore, CBME identifies residents who are struggling and can offer personalized feedback, coaching and remediation to aide success (Caverzagie et al., 2017; Crawford et al., 2020; Dubé et al., 2023).

The philosophy behind CBME is assessment *for* learning, meaning that assessments are used as ‘teachable moments’ for residents (Caverzagie et al., 2017; Lockyer et al., 2017). This philosophy contrasts the traditional time-based philosophy of assessment *of* learning, which relies on high-stake assessments to determine residents’ states of progress. Assessment *for* learning, also called *programmatic assessment*, is the use of multiple, frequent, low-stakes assessments that help resident learn (Iobst & Holmboe, 2020; Lockyer et al., 2017). Feedback is meant to be formative, immediate, routine, specific and actionable (Iobst & Holmboe, 2020; van der Vleuten et al., 2018). The goal is to obtain diverse perspectives in feedback so that competence committees (i.e., a group of faculty, clinical supervisors and PDs who make high-stake decisions about a resident’s overall performance and progress) feel confident in their decision-making processes. van der Vleuten et al., (2010) describe programmatic assessment as “a series of biopsies [that] will provide a more complete, more accurate picture” (p. 708) of a resident’s performance and competence.

Challenges to CBME Implementation

Despite acknowledgement across literature that CBME is a superior approach to traditional medical education because of its promise to improve residents’ educational outcomes and, as a result, patient care (Geoffrion et al., 2019; Schumacher et al., 2023; Sonnadara et al., 2014), CBME implementation has its challenges. Common challenges of implementing CBME discussed across the literature include adapting medical education to the context of time-variability, poor ‘buy-in’ from faculty and residents and demands for frequent quality assessments (Caverzagie et al., 2017; Ferguson et al., 2017; Nousiainen et al., 2017; Schumacher et al., 2021).

Time-variability is one of the biggest challenges to the implementation of CBME because it requires structural and organizational changes to medical education (Caverzagie et al., 2017;

Schumacher et al., 2021). For example, to be fully time-variable, medical schools must change their admission process to accept new residents to the program at variable times throughout the year. Regulating bodies must also offer licensing exams at variable times. Medical schools must have contingency plans so that if a resident leaves, new residents are available to take their place in order to meet hospital demands (Dubé et al., 2023; Holmboe et al., 2017; Schumacher et al., 2021). Time-variability also requires stakeholder buy-in, collaborative planning and likely, an incremental approach (Schumacher et al., 2021).

Faculty and resident ‘buy-in’ to CBME requires culture shifts in medical education. Residency PDs and residents must be convinced that the implementation of CBME is worth the extra time and energy it takes because it produces ‘better’ physicians and improves patient outcomes (Blades et al., 2020; Dubé et al., 2023; RCPSC, 2020). Unfortunately, research is lacking on the outcomes of CBME, specifically with validated, psychometric measures (Brydges et al., 2021; Ferguson et al., 2013; Van Melle et al., 2019). Also, faculty and residents must establish a ‘growth mindset’ and understand that observations and feedback in CBME are ‘learning opportunities’, rather than judgments (Caverzagie et al., 2017; Ferguson et al., 2017; Richardson et al., 2024; Schumacher et al., 2021). However, research suggests that residents remain focused on high-stakes assessment in CBME, despite its intent to move away from this (Blades et al., 2020; Dubé et al., 2023; Sonnadara et al., 2014).

To improve the culture of medical education in support of CBME, it has been suggested that faculty and residents engage in professional development and that educational leaders who are invested in the principles of CBME offer support and guidance to them (Atkinson et al., 2024; Carraccio et al., 2016; Ferguson et al., 2017). Furthermore, continuity of CBME across undergraduate and graduate medical programs is important to establishing universal acceptance of it across the medical education community (Carraccio et al., 2016; Ferguson et al., 2017).

Lack of time for frequent, quality assessments is another challenge to the implementation of CBME (Dubé et al., 2023; George et al., 2021; Rabski et al., 2020; Roberts, 2023;Wang et al., 2019). Residents have called faculty’s feedback “wide, vague, and generalized” (Branfield Day et al., 2023, p. 44). They have felt that faculty treat assessments as ‘checkbox’ exercises, rather than learning opportunities (Costello et al., 2023). Faculty have expressed that the demand for assessment in CBME is too high, suggesting that frequent assessments would be more feasible if evaluation forms took a maximum of three minutes and more verbal than written feedback was allowed (Rabski et al., 2020). However, residents and competence committees require detailed paper trails to track residents' progress on EPAs and develop personalized learning plans (Driessen et al., 2005; (Flemming, 2022; Hanley et al., 2019; Ritchie et al., 2020). Thus, quick, verbal feedback is not a solution to the lack of time for the frequent assessments required in CBME. Possible solutions have been suggested, such as faculty development to improve efficiency in assessments (Atkinson et al., 2024; Nousiainen et al., 2017; Richardson et al., 2024), and the use technology to ease access to evaluation forms and improve faculty's ability to provide immediate feedback (Bentley et al., 2022; Miller et al., 2024; Rabski et al., 2020). However, these are 'band-aid' solutions and do not address the real problem of having an over-crowded curriculum that is too demanding of faculty and learners (Miller et al., 2024; Ott et al., 2023).

Competence by Design (CBD): A model of CBME

Competence by Design is the Canadian hybrid model of CBME. In 2017, the RCPSC mandated a phased transition to CBD, starting with Anesthesiology and Otolaryngology (RCPSC, 2024c). As of July 2023, the 54 Canadian residency specialties scheduled to transition to CBD have undergone implementation. Developmental Pediatrics, Ophthalmology, Palliative Medicine, Pain Medicine, and Pediatric Emergency Medicine were the most recent to make the transition.

Competence by Design is called a *hybrid* model because time remains a limit in residency programs (RCPSC, 2024d). In CBD, there is a minimum amount of time that residents must stay in each stage of their program. A resident may spend more time in a stage, if needed, but not less. A fixed limit of time in CBD likely remains for two reasons. First, as discussed, adjusting to time-variability requires structural, organizational and cultural reform in medical education, which is challenging and takes time (Schumacher et al., 2021). Second, maintaining time as a limit ensures that residents obtain a minimum level of exposure to, and experiences with, the demands of each educational stage, which get more complex as residents progress through them (Fraser et al., 2016; Stodel et al., 2015).

There are four stages of CBD, leading up to specialty certification: (1) *Transition to discipline*, (2) *Foundations* of discipline, (3) *Core* of discipline, and (4) *Transition to practice*

(Pinsk et al., 2018). *Transition to discipline*, introduces and orients residents to their specialty (Stodel et al., 2015). This stage may include, for example, orientation sessions, assessments of basic skills and lectures about CanMEDS competencies. *Foundations* of discipline introduces residents to the clinical environment; includes courses that prepare residents for complex skills; and may end with a summative assessment. *Core* of discipline is usually broken into two parts. Part 1 introduces residents to the theory behind complex tasks, and Part 2 reinforces them in clinical practice. *Transition to practice* prepares residents to work independently, often requiring them to mentor junior residents (Stodel et al., 2015).

The number and complexity of EPAs, level of supervision needed of each EPA and resource availability (e.g., staffing requirements) define time limits of each educational stage (Al-Qadhi et al., 2020). Time-limits may also vary between medical schools and specialities. For example, Anesthesiology residents at the University of Ottawa must spend at least 6 months in *Foundations* and 35 months in *Core* (Fraser et al., 2016). Meanwhile, at the University of Toronto (2024), they spend a minimum of 20 months in *Foundations* and 24 months in *Core*. Both are meant to be 4-year programs, but they allocate their EPAs and resources differently across CBD stages.

A survey of residency PDs who had made the transition to CBD suggests that they believe that many elements needed for effective CBD implementation have been established, however, faculty remain resistant to the change from traditional, time-based medical education (RCPSC, 2020). As discussed in the section on *Challenges to CBME Implementation*, there are structural, organization and cultural reforms needed before CBD can be fully adopted. Many of the challenges to the implementation of CBME, such as poor ‘buy-in’, lack of time for frequent assessments and technological barriers remain the same in CBD (Cadieux et al., 2022; RCPSC, 2020).

Patient Involvement in CBME & CBD

Patient involvement in CBME and CBD is lacking. There is minimal research on the topic, which suggests that patients are not being involved in the teaching and/or assessment of EPAs. Of the research available, a survey of Canadian residency PDs found that most (about 79%) do not *plan* to involve patients in CBD assessments (Moreau et al., 2019). Sadly, the biomedical philosophy of medical education does not support patient involvement in teaching or assessment in CBME and CBD (Rowland et al, 2019). In such a culture, patient feedback is considered too informal and subjective (Khalife et al., 2022; Rietmeijer et al., 2021).

Nevertheless, literature supports that patients *should* contribute to assessment in CBME and CBD. Many studies suggest that patients should assess residents' interpersonal and communication skills, be involved in MSF and provide insights into aspects of medical education that faculty are less focused on, like how a physician made a patient *feel* (Barr et al., 2021; Byrd et al., 2020; Chisholm & Askham, 2006; Khalife et al., 2022; Kogan & Holmboe, 2013; Yang et al., 2023). Medical education researchers have also suggested that patients could contribute to the multiple, low-stakes formative feedback that competence committees use to make high-stake decision about a resident's progress (Gruppen et al., 2018; Holmboe et al., 2010; Kogan & Holmboe, 2013; Naylor et al., 2015; ten Cate, 2017; van der Vleuten et al., 2010; van der Vleuten & Schuwirth, 2005). By adding patients' perspectives to the 'assessment equation' of EPAs, competence committee members obtain holistic and authentic data of a resident's performance (van der Vleuten et al., 2010).

Besides assessment, it has also been suggested that patients could contribute to the development of EPAs and milestones (El-Haddad et al., 2017, 2021; Frank, 2005). For example, El-Haddad et al. (2021) developed a questionnaire and conducted interviews with patients, who have experiences with receiving medical and/or surgical care, and found that their expectations of their physicians could directly inform the content and wording of EPAs. The authors also stressed that patients' experiential knowledge of illness and healthcare improves the authenticity of EPAs. In terms of milestone creation, the 2005 CanMEDS Framework explains that a Societal Working Group explored public perspectives in what milestones should encompass (Frank, 2005). While the framework is not explicit as to whether patients were included in the Societal Working Group or directly involved in deciding the CanMEDS milestones, it does suggest that patients *could* be (Adam et al., 2023; Carraccio et al., 2017).

Summary and Research Questions

In this section, I summarized the findings from the literature, specifically regarding patient involvement in HPE, CBME and CBD. I used this summary to justify the need for this study and to introduce my research questions. Next, I present my conceptual framework, which was informed by the literature and illustrates the interconnectedness of concepts that affect patient involvement in CBME and CBD.

From the literature, it can be concluded that active patient involvement (i.e., sustained positions that offer patients autonomy in teaching and/or assessment) in medical education has many benefits for learners and patients themselves. However, there are many challenges which act as barriers to patient involvement, including a lack of practical frameworks to help educators involve patients, concerns with patient representation, lack of time and buy-in from faculty and power-differentials between patients and HCPs. If involved in HPE, patients remain as storytellers of their experiences with illness and healthcare, or they provide informal feedback to learners about how an interaction made them feel. Such involvement offers patients little autonomy, sustainability or partnerships in medical education.

Competency-based medical education is a newly implemented outcome-based approach with an assessment *for* learning philosophy. It has the goal of improving competence among physicians and, ultimately, patient outcomes. However, CBME takes a considerable amount of time to plan and implement. Competence by Design, the Canadian hybrid model of CBME, shares many of the challenges that CBME has, except time-variability.

There is a lack of literature and research on patient involvement in CBME, including CBD. However, the limited literature available suggests that patients are not involved in the teaching or assessments of EPAs, but they *could* / *should* be. Thus, the literature justifies the need for this study. To illuminate how patients may be incorporated into CBD, specifically in the teaching and assessment of EPAs, there is a need for empirical research into a) the extent to which patient involvement is currently indicated within EPA documents; b) the perceptions of those involved with EPAs about patient involvement in the teaching and assessment of EPAs, during EPA creation; and (c) beliefs of those involved with EPAs about whether patients *could* (or *should*) be involved in the teaching and assessment of EPAs. This empirical research will illuminate barriers and possible solutions to patient involvement in the teaching and assessment of EPAs, and CBME in general.

The following three research questions guided this two-part qualitative study:

Part 1 (RCPSC EPA Document Analysis)

1. How is patient involvement indicated (or not indicated) across selected RCPSC EPA documents?

Part 2 (Interviews with Those Involved with EPAs)

2. During the creation of EPAs, how were patients envisioned to be involved (or not involved) in teaching and assessing EPAs?
3. How can patients contribute to teaching and assessing EPAs?
4. What are the perceived barriers to involving patients in teaching and assessing EPAs?

Conceptual Framework

In this chapter, I reviewed two bodies of literature: (a) peer-reviewed literature on patient involvement in HPE, which highlighted the benefits and challenges of active patient involvement, how patients are (or could be) involved, and, overall, revealed that active patient involvement in HPE is lacking; and (b) peer-reviewed literature on CBME and CBD, which highlighted distinguishing features of them, the benefits and challenges of each and how patients are (or could be) involved in them. The literature suggested that there is a lack of patient involvement in CBME and CBD. I outlined the research questions that guide this study. They are based on my understanding of the literature about patient involvement in medical education and my assumption from the literature that improvements to patient involvement in CBME and CBD are needed.

The purpose of this study to explore how patients are involved in the teaching and assessment of EPAs, within the CBD model of CBME. There are three concepts that influence empirical knowledge on this phenomenon: (a) patient involvement in HPE; (b) features and challenges of CBME and CBD; and (c) patient involvement in CBME and CBD. These concepts are presented in the conceptual framework in *Figure 2*. The interaction between these concepts is inspired by Bronfenbrenner's ecological model (Bronfenbrenner, 1994). Bronfenbrenner's ecological model is based on the theory that microsystems (i.e., relationships between phenomena and their immediate environment) and macrosystems (i.e., relationship between phenomena and culture/ institutional patterns) interact and affect one another.

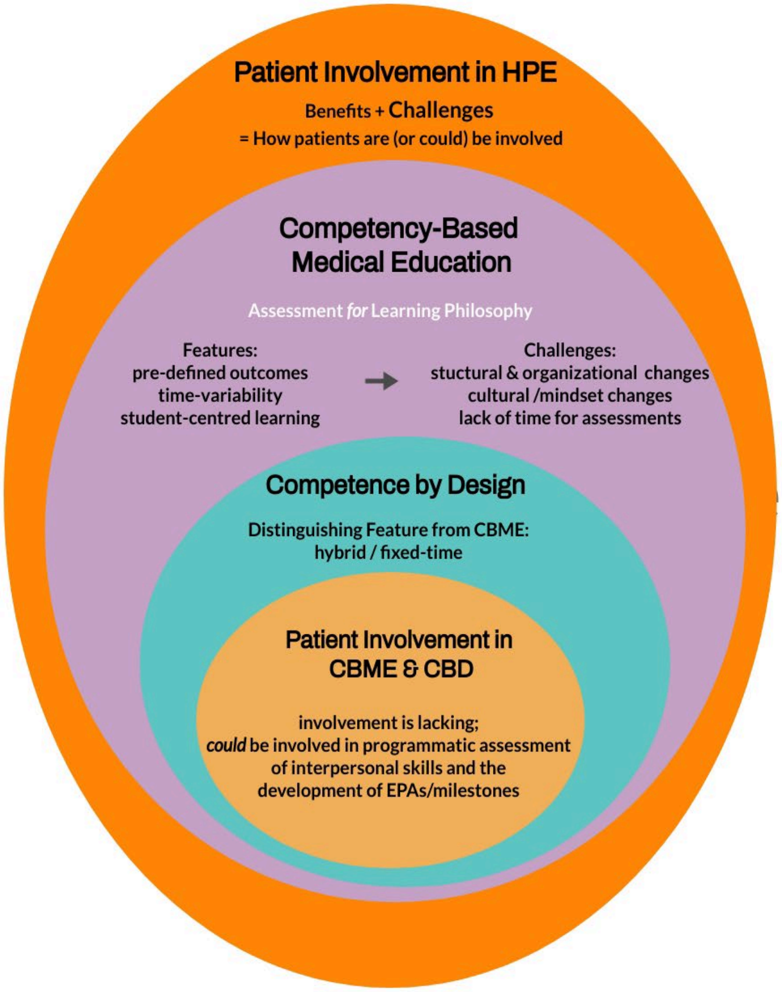
Bronfenbrenner's ecological model works well in this study because its concentric rings depict that the overarching culture behind how patients are involved in HPE ultimately affects how patients are (or could be) involved in medical education, including CBD. Specifically, I base this study on the theory that (a) the benefits and challenges of patient involvement in HPE affect how patients are (or could be) involved in HPE (See the outermost ring) and how patients are (or could be) involved in CBME and CBD; (b) CBME has features, challenges and philosophies (See the 2nd outermost ring) that are (1) affected by wider cultures in HPE (Re: outermost ring) and (2) get passed down to CBD (See 2nd innermost ring); and (c) patient involvement in CBME and CBD (See innermost ring) is affected by all the rings.

To provide context to my conceptual framework, I offer the following example: I make assumptions from the literature that the culture of limited active patient involvement in HPE (Re: outermost ring) will be represented by a lack of active patient involvement in CBME and CBD (Re: innermost ring), namely, in the teaching and assessment of EPAs. However, there are other factors in CBME and CBD (Re: 2nd outermost ring and 2nd innermost ring, respectively) that affect patient involvement in CBD. For example, the *assessment for learning* philosophy of CBME and CBD *could* create a potentially welcoming area for patient involvement in the multiple, low-stakes, formative assessments of CBD (i.e., in the innermost ring). Comparatively, the learner-centredness of CBD sets a culture greatly focused on presenting the learner with skills deemed important to the medical professions, most of which focus on biological (rather than psychosocial) aspects of medicine and technical skills. These aspects and skills of medical education are presumed to require less patient involvement than interpersonal and psychosocial skills. Thus, the patient-centeredness of patient involvement in medical education and the learner-centeredness of CBD may be at odds with one another.

Overall, my conceptual framework illustrates that there are complex layers to understanding patient involvement in CBD, including in the teaching and assessment of EPAs. This study will contribute to empirical knowledge to this topic and aims to highlight, for those invested in patient involvement in HPE and CBD, areas of improvement for patient involvement in the teaching and assessment of EPAs.

Figure 2

Conceptual Framework for Patient Involvement in CBD



Note. HPE = Health Professions Education; CBME = Competency-Based Medical Education; CBD = Competence by Design

Chapter 3: Researcher Positionality, Worldview & Research Design

Chapter 3 provides an overview of the study's philosophy and design. I present my position and my resulting worldview as a researcher in this study. I discuss the broad field of qualitative research and situate my study within it. I also provide a detailed description of my study's design and the research questions that inform it. I end this chapter by discussing ethical considerations of this study and providing a summary of the chapter.

Researcher's Position and Worldview in the Present Study

In qualitative research, researchers' experiences (or lack thereof) with the phenomenon under study provide them with perceptions, assumptions and beliefs (i.e., worldviews) that impact how they approach the research question(s) at hand (Creswell, 2013). Thus, it is important that I explain my relation to (and resulting worldviews of) patient involvement in medical education so that I am transparent in why I chose a constructivist worldview for this study.

Position Statement

I consider myself an 'outsider' in relation to the phenomenon of teaching and assessment in medical education because I am not a medical teacher or learner myself, nor do I have experience in creating medical curricula, such as EPA documents (Savvides et al., 2014). Thus, I cannot directly speak to how patients are (or are not) involved in medical education (including in the teaching and assessment of EPAs), or whether patients were discussed during EPA creation. Being an 'outsider' made recruitment of participants, especially those who created EPAs, challenging because I lacked 'inside' knowledge that would otherwise help me contact those who are involved with EPA creation and/or teaching and assessment.

Nevertheless, I do have 'inside' knowledge on the topic of patient involvement in HPE as someone who has experiences as a patient, nursing student and novice researcher in this field. In the next paragraphs, I provide a brief overview of my patient history, nursing background and research experiences, that award me 'inside' knowledge of patient involvement in HPE. I share these experiences for the purpose of contextualizing for the reader where my worldview of this study stems from.

As a child, I was diagnosed with hemolytic uremic syndrome and admitted to the Children's Hospital of Eastern Ontario. I required care from physicians, including residents, from many specialties (e.g., cardiology and cardiac surgery, nephrology, neurology, general surgery, otolaryngology, anesthesiology, and rehabilitative medicine). I have continued to receive care into my adulthood. My experiences with physicians from various medical specialties have made me believe that residents from different specialties are taught the biopsychosocial philosophy and values behind medicine differently, awarding some specialities greater chance of involving patients in education than others. For instance, as a patient who has experienced both long-term pediatric and adult care from physicians, I have developed a bias that physicians (and residents) from specialties like obstetrics, family medicine, and pediatrics are taught values of psychosocial and cultural care 'better' than some other specialities because they tend to be 'warm' toward patients, less 'business-like', and they actively listen to their patients, I am inclined to believe that they would be more willing to involve patients in education. To mitigate the effects of this bias, I remain transparent to it, reminding myself that who a physician becomes and how they practice medicine, is, ultimately, their personal choice.

My patient experiences also make me approach concepts of this study with a strong patient-centred lens. For example, from a learner-centred lens, 'competence' means being able to do medical skills independently and safely (Dijksterhuis et al., 2009). Yet, my patient-centred lens makes me define 'competence' as being a 'good' physician, not only having the technical skills to do procedures safely but also having the interpersonal and 'soft' skills needed to truly *care* for patients. I remain open to the fact that my patient-centred lens may affect how I define concepts of CBD, and that these definitions may be in favour of patient involvement. Reflecting on the learner-centered goals of CBD, I remind myself that medical educators and learners may question whether patient involvement in CBD is valuable and necessary.

My experience as a recent (2018) nurse graduate also makes me an 'insider' to topic of patient involvement in HPE, although not specific to medical education. During my nursing education, I was only exposed to one patient 'teacher' in the classroom, where the patient taught about his/her experiences of living with schizophrenia. At the bedside, patients taught me skills in communication, empathy, compassion and critical thinking. However, I recognized that patient involvement remained informal. Never, at least to my knowledge, did patients have opportunities to work with my clinical supervisors or formally assess my skills, despite my nursing education espousing a strong philosophy of patient-centred care (i.e., working *with* patients, not *on* them). Thus, my experiences with nursing education creates my belief that active patient involvement in HPE, including in medical education, is not happening. I remain transparent to this bias so that it does not affect my perceptions on the findings from this study.

Finally, while I am a novice researcher in the field of patient involvement in HPE, I have read an abundant amount of literature about the importance and benefits of patient involvement in HPE. Thus, I would be amiss to not acknowledge that this has created a bias within me that patients *can* and *should* be involved in the teaching and assessment of EPAs. However, I also remain open to fact that patient involvement may not be appropriate in all contexts and situations. Listening to the opinions and perspectives of participants in this study will be important to targeting where patient involvement in EPAs can be best utilized.

Overall, my acknowledgement of my personal and professional preconceptions of patient involvement in medical education is reinforced within a constructivist paradigm, which I have chosen for this study. Constructivist theory (discussed further in the next section) argues that biases (i.e., preconceptions of a phenomenon that are affected by past experiences) cannot be removed from a study, only acknowledged (von Glasersfeld, 2002). This acknowledgement is known as 'bracketing' and encourages researchers to exhibit a transparency in their biases in order to improve the trustworthiness of a study's findings (Tufford & Newman, 2012). Bracketing allowed me to routinely evaluate how my own biases and preconceived notions may affect how I collect and analyze data, particularly during interviews with those involved with EPAs (Part 2 of this study). Throughout my data collection and analyses, I would ask myself, "Is this really what the participant is telling me, or could what participants are telling me be interpreted differently?" Asking myself these questions made me reflect on whether I was projecting my own biases onto what participants were telling me, and this introspection helped keep my interpretations honest.

Worldview of the Study

The worldview that a researcher decides upon for a study defines what is real (the ontology), what counts as knowledge (the epistemology) and the values (i.e. the axiology) of the study (Kivunja & Kuyini, 2017; Patton, 2015). I approach this study with a constructivist lens because it allows me to believe that multiple realities of the phenomenon under study will exist (Re: ontology) as individuals construe knowledge based on their own personal experiences and contexts with this phenomenon (Re: epistemology). Everyone's construal of knowledge will be accepted as an objective truth (Re: axiology) (Steffe et al., 2002; von Glasersfeld, 2002). Specifically, it allows me to acknowledge that participants in this study (i.e., those involved with EPAs) have unique biological, psychological, social and cultural backgrounds that will affect their perceptions about why, how or if patients could (or should) be involved in the teaching and assessment of EPAs. While there will be multiple perceptions of this phenomenon, each will contribute equally to its understanding. Nevertheless, there will be similarities in how individuals perceive patient involvement in the teaching and assessment of EPAs because constructivists believe that people aim to have an 'internal coherence with the external world', or have realities that align with a collective (Proulx, 2006; von Glasersfeld, 2002).

Unlike constructionism (or social constructivism), which focuses on how *interactions* between people and objects construct a collective knowledge about a phenomenon (Davis, 2004), radical constructivism focuses on *how individuals* understand a phenomenon. Using a constructivist lens in this study allows me to recognize that the culture of medical education may influence participants' perceptions of patient involvement in EPAs but, ultimately, their perceptions on the phenomenon are their own, based on their personal and professional experiences. Furthermore, it allows me to acknowledge that my own subjective interpretations of patient involvement cannot be removed from the study, only mitigated through transparency (bracketing).

Qualitative Research

In the mid-19th century, there became increased interest in studying how to systematically conduct 'social', rather than 'physical', science (Denzin & Lincoln, 2018). Many philosophers of that time – for example, Dilthey, Weber, Simmel, Husserl, and Heidegger – argued that the 'science' of society (today, known as 'social science') could not be predicted, tabulated or proven, as it could be in the physical sciences. Social scientists argued that 'objective' truth could be found in the *meanings* that people ascribe from their interactions and experiences with objects and phenomena around them. Namely, social scientists argued that studying people's everyday actions, and what these actions mean to them, can help us better *understand* the world around us, including how people and systems function within it (Denzin & Lincoln, 2018; Patton 2015). They argued that exploring peoples' perceptions and experiences of the world allows us to better understand what a phenomenon *is*, within various contexts and at certain points in time (Merriam & Grenier, 2019). Thus, in qualitative research, *meaning* and *understanding* of a phenomenon are considered objective truths.

Meaning is derived from our interpretations of our experiences with phenomena, which are impacted by our unique biopsychosocial backgrounds and contexts (Patton, 2015). There is no way to be sure that two experiences or meanings will be the same, thus, qualitative researchers have had the difficult task of justifying the reliability of their findings (Merriam & Grenier, 2019). However, as mentioned, it is important to remember the end-goal of qualitative research is *understanding* a phenomenon, not making absolute declarations about it. Merriam & Grenier (2019) remind us that "the world is not fixed …There are multiple interpretations of reality that change over time … [but] qualitative researchers are interested in understanding what those interpretations are at a particular point in time and in a particular context" (p.33). Thus, as the 'instrument' of inquiry in qualitative research, a researcher must open their minds to others' interpretations of the world and phenomena in it (Creswell, 2013; Patton 2015).

Design of this study. A researcher's choice of qualitative approach (i.e., how data will be collected, analyzed and reported) depends on the research question(s) at hand, as well as the study's aim (Creswell, 2013). The aim of this study is to understand how patients are (or are not) involved in the teaching and assessment of EPAs. To my knowledge, this is the first study to explore this topic from the perspectives of those involved with EPAs. Given that there is limited knowledge and understanding about this topic, qualitative approaches were most appropriate for this study's research questions because they allowed me to explore and interpret the topic of patient involvement in EPAs and seek rich and in-depth descriptions from participants' perspectives on this topic. I chose to employ two qualitative approaches in this two-part study.

In part 1 of this study, I used document analysis to systematically organize and categorize how patients are indicated within EPA documents (Bowen, 2009; Gross, 2018). Document analysis provided me with baseline insights into how patients may (or may not) be involved with EPAs in practice. This insight informed my interviews with those involved with EPAs (i.e., Part 2 of this study). It also helped me understand the structure of EPAs and milestones, as well as the trends in how patients are indicated across specialties. Overall, analysis of EPA documents provided me with knowledge required to conduct Part 2 of this study.

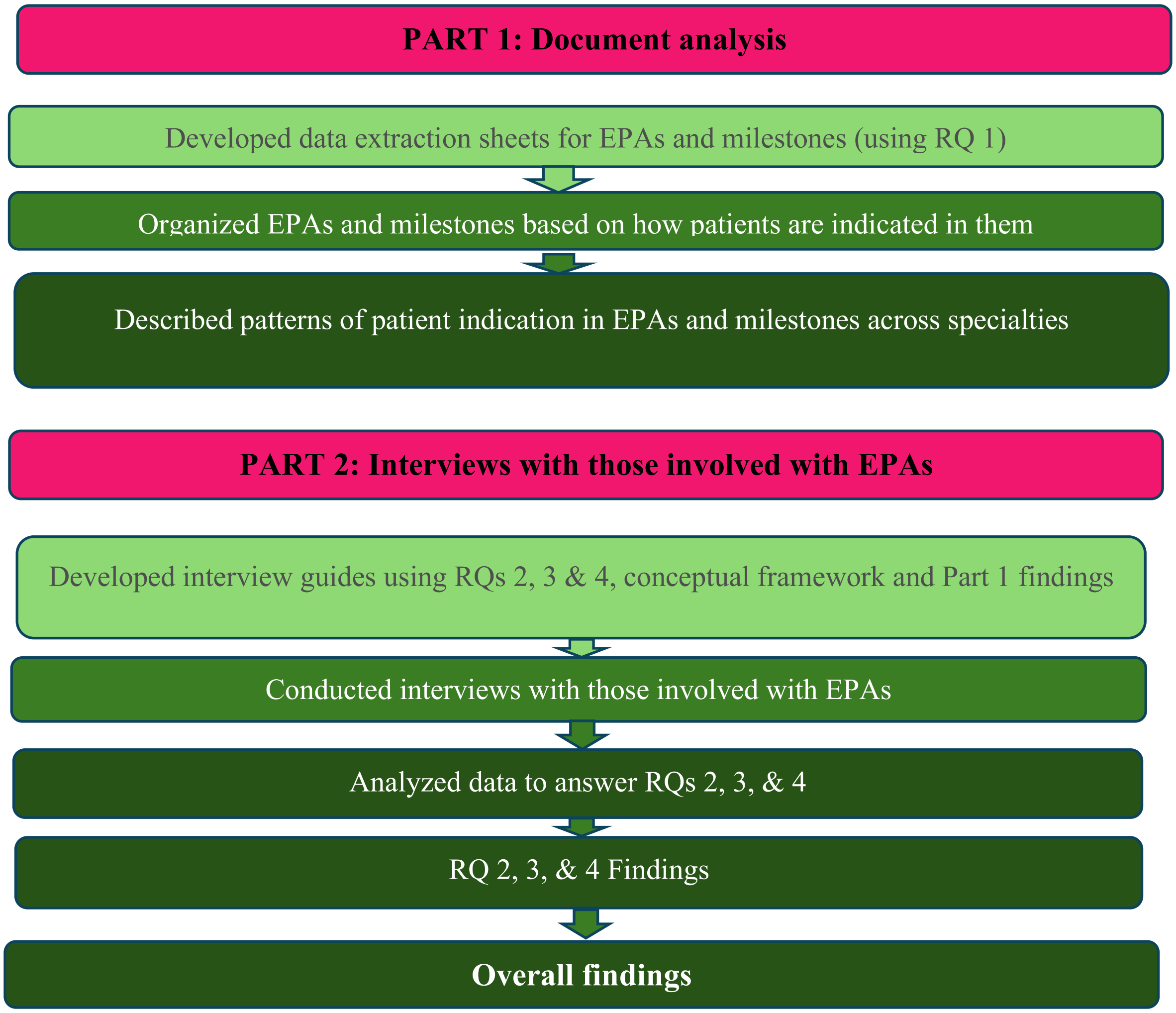
Second, I employed an interpretive qualitative approach when conducting interviews with participants (Merriam & Grenier, 2019). This approach enabled me to use open-ended and follow-up questions to obtain rich descriptions of the phenomenon under study. These rich descriptions were essential in my ability to analyze the meanings that those involved with EPAs ascribe to patient involvement in EPAs. As such, this approach allowed me to elucidate participants' perspectives on how (or if) patients were discussed during EPA creation, as well as how (or if) patients are (or should/could be) involved in teaching and assessing EPAs.

The two qualitative approaches used in this study allowed me to explore how patients are indicated in EPA documents and how those involved with EPAs perceive patient involvement in the teaching and assessment of EPAs. These approaches provided an overview of patient involvement in EPAs, from conception to implementation. Part 1 of this study was mutually exclusive to Part 2. It provided me with insights into how patients are portrayed in medical education curricula (i.e., EPAs) and insights into the likeliness that patient involvement occurs during the implementation of EPAs. It also helped inform my interviews in Part 2 of this study. In Part 2, I conducted one-on-one semi-structured interviews with those involved with EPAs because it allowed them to lead discussions in meaningful ways to them, while answering the research questions at hand (Merriam & Grenier, 2019).

Figure 3 shows the research process of this two-part study that is further detailed in Chapters 4 and 5. It depicts the methods used in each part of the study, including instrument development (See light green sections), data collection (See medium green sections), and data analysis (See dark green sections).

Figure 3

Illustration of the Two-Part Research Process



Ethical Considerations

I sought ethics approval from the research ethics board at the University of Ottawa before commencing with Part 2 of this study (See *Appendix A* for Ethics Approval Letter). Part 1 of this study did not require ethics approval because it only required that I analyze documents. In Part 2 of this study, I sent recruitment emails to those involved with EPAs. Recruitment emails outlined the purpose of the study, discussed confidentiality and anonymity, as well as participants' right to withdraw from the study at any time. I sent each participant a consent form and provided them at least 48-hours to review it before their interview with me. I conducted interviews over a virtual platform (i.e., Microsoft Teams or Zoom) or by telephone. I audio-recorded each interview, after receiving verbal consent from participants. I communicated with participants that they could ask me questions or share concerns about my study with me at any time. Apart from me asking participants to identify which specialty they were from no other identifying information was asked of participants. Immediately after each interview, I downloaded each participant's audio-recording and erased it from the Microsoft Teams or Zoom platform. Then, I uploaded it to a secure password-protected University of Ottawa SharePoint drive. Only I and my thesis supervisor (Dr. Katherine Moreau) had access to this drive. Once uploaded to this secure drive, I erased audio-recordings from my home computer files (i.e., downloads and recycle bin). I also uploaded participant transcripts to the secure SharePoint drive. I replaced names with pseudonyms and kept the master copy of 'name and pseudonym' separate from the audio-recordings and transcripts on my password-protected computer. Any hard copy data (i.e. transcripts, consent forms, researchers' notes) that I obtained during data collection and analysis were stored in a locked cabinet in my home office. I will conserve data for five years after the publication of research findings. After this time, I will discard the data appropriately and securely.

In addition to considering the ethical conditions of my study, mentioned above, there were also two main ethical issues I considered during interviews with those involved with EPAs. I conducted my study during the COVID-19 pandemic. This pandemic has increased physician and resident burnout rates and has left them highly overworked (Canadian Medical Association, 2021). I recognized that inviting those involved with EPAs, most of whom are physicians, to participate in a 30–45-minute interview may be asking too much of them. Thus, I ensured that I sent eligible participants only one email invitation during each phase of recruitment and highlighted in the invitation letter that their participation was strictly voluntary. Also, the first two or three interviews with participants provided me with insights into how to focus conversations with remaining participants, so that interviews lasted only 20-30 minutes. I remained flexible to participants' chosen meeting times and accommodated their schedules.

The other main ethical concern was that those involved with EPAs may feel uncomfortable disclosing information and sharing personal insights on the topic, especially if they did not involve patients in the teaching or assessment of EPAs or believe that patients should be involved at all. Thus, I reminded participants that there were no right or wrong answers to my questions; they did not have to answer any question that made them feel uncomfortable; they could withdraw from the study at any time; and their answers will remain strictly confidential.

Summary

In chapter 3, I discussed my position and how it impacts my biases toward patient involvement in the teaching and assessment of EPAs. I explained that I conducted this study under a constructivist lens because it allowed me to acknowledge my own preconceptions of patient involvement in the teaching and assessment of EPAs, as well as acknowledge that participants' unique interpretations of this topic will equally contribute to a greater understanding of it. I explained that I am using qualitative approaches in my study because this allows me to understand patient involvement in EPAs through the meanings and insights of others, including myself. I discussed that, in Part 1, using document analysis, I sought a baseline understanding of how patients are indicated in a sample of RCPSC EPA documents. In Part 2, I conducted interviews with those involved with EPAs to understand how (or if) patients were envisioned being involved in the teaching and assessment of EPAs, during creation, as well as how patients are (or are not) involved in the teaching and assessment of EPAs in practice. I provide further details of Parts 1 and 2 of this study in chapters 4 and 5, respectively. I concluded chapter 3 with ethical considerations of this study.

Chapter 4: Part 1 EPA Document Analysis

This chapter includes an overview of Part 1 of this study, where I analyzed a sample of EPA documents to identify how patients are indicated in them (Bowen, 2009). I aimed to understand how patients are (or are not) portrayed across EPAs and milestones. I used the findings to inform interviews conducted with those involved with EPAs in Part 2 of this study and to obtain an understanding of EPAs, in general. The following research question guided this document analysis: *How are patients indicated (or not indicated) across selected specialty RCPSC EPA documents?*

In the following sections of this chapter, I explain the structure and content of EPA documents, how I chose my sample of EPA documents to analyze and the process I took to analyze them. Then, I explain how I established trustworthiness in my analysis. I end this chapter by presenting the findings from my document analysis.

Structure and Content of EPA Documents

The EPA documents used in this study were created by members of the RCPSC. However, the authors are not named. Royal College EPA documents follow a standard structure. Each document begins with the date it was created and is broken into educational phases of CBD (i.e., *Transition to Discipline*, *Foundation* of Discipline, *Core* of Discipline, and *Transition to Practice*). The number of EPAs in each phase varies based on specialty and program. Each EPA has sub-headings of *Key Features, Assessment Plan, and Relevant Milestones.*

The *Key Features* section explains the actions that residents must take to complete the EPA, which includes, for example, assessing a patient, determining differential diagnoses, presenting a case to other physicians and ensuring appropriate documentation of care. *Key Features* also outline the setting in which the EPA is to take place, such as in a clinic or out-patient setting. The *Assessment Plan* section outlines who is eligible to assess a resident on the EPA. Potential assessors include lead residents, subspecialty trainees, nurses, specialty-specific attending physicians, faculty and patients. The *Assessment Plan* also details the forms or assessment tools that the assessor must use to evaluate the EPA, as well as how many times the EPA must be observed. Finally, each EPA ends with a list of *Relevant Milestones*, measurable and observable tasks that a resident must demonstrate before the EPA is considered complete.

Selected Sample of EPA Documents

I drew on the work of Holt and colleagues (2010) to select my sample of RCPSC EPA documents for this study because it provides knowledge about patient involvement in assessing competencies, defined by the Accreditation Council for Graduate Medical Education (in the United States). Although Holt and colleagues' study was conducted in the US and before the implementation of CBD in Canada, to my knowledge, it is the only study that compares patient involvement across specialties. This comparison was important to my sample selection because it provided me with a baseline of specialties 'expected' and 'not expected' to involve patients in assessing competencies, which I suspected would translate into Canada's specialties and CBD curriculum (i.e., EPAs). Based on Holt and colleagues' study, I selected specialties that I 'expected' to involve patients, based on high rates of patient involvement in assessment, as well as specialties 'not expected' to involve patients, based on low rates found in the study. I figured that this would provide me with a diverse sample of EPAs and milestones, so that I could thoroughly analyze patient indication across the CBD curriculum.

I chose a total of eight EPA documents for analysis in this study, specifically from specialties governed by the RCPSC so that patient involvement remained situated in the CBD model. I chose four EPA documents from specialties that I expected would likely involve patients, based on Holt and colleagues (2010), and four that I did not expect to. *Table 1* provides an overview of the sample of EPA documents included in this study.

Table 1

Sample of EPA Documents

Canadian Medical Specialties **Expected** to include patients in EPAs	Canadian Medical Specialties **NOT Expected** to include patients in EPAs
General Internal Medicine **Obstetrics and Gynecology** **Psychiatry** **Anesthesiology**	**Radiation Oncology** **General Surgery** **Emergency Medicine Physical Medicine and Rehabilitation**

EPA Document Analysis

I used document analysis to analyze my sample of EPA documents for two reasons. It allowed me to systematically organize the data in ways that helped me answer the research question at hand (i.e., *how patients are (and are not) indicated in EPA documents*). It also helped me understand the structure and content of EPA documents (Bowen, 2009; Gross, 2018) so that I could have in-depth conversations with those involved with EPAs (in Part 2 of this study) about patient involvement in teaching and assessment.

Methods. I used the 3-step approach to document analysis described by Bowen (2009). First, I determined the criteria for data extraction. Second, I organized the data into categories of meaning. Finally, I identified patterns, in this case, of how patients are indicated in EPA documents. I provide further details of these steps below:

Step 1: Determined Criteria for Data Extraction

I created two data extraction sheets, one each for EPAs and milestones. I listed every EPA and milestone from my sample of eight EPA documents that included the term(s) patient(s), family, child(ren), person, parturient, and/or public [herein referred to as patient(s)] in the data extraction sheets. In the EPA extraction sheet, I also noted eligible assessors of each EPA, to track whether patients were included as possibilities. At the end of the data extraction phase, 1264 milestones 136 EPAs were collected.

Step 2: Organized Data into Units of Meaning

To find units of meaning, I removed any duplicates of milestones and EPAs because the focus of this study is not on the number of milestones that indicated patients, but rather on *how* patients are (or are not) indicated. There were 596 duplicates of milestones and none of EPAs. A total of 668 milestones and 136 EPAs remained for analysis. I used conventional content analysis to organize EPAs and milestones into units of meaning. This approach allowed me to organize the data into units, based on words and phrases used to describe the terms for patient(s) (Hsieh & Shannon, 2005, 2018). For example, I put all milestones that indicated the term 'patient(s)' as a descriptor, such a *patient-centred care*, *patient presentation*, *patient safety*, *patient healthcare needs*, etc., into one 'unit.' Other units of meaning included doing something '*for* a patient', '*to* a patient', and '*with* a patient'. The same approach was used for EPAs. *Table 2* provides an example of a unit of meaning for milestones.

Table 2

Example of Milestones in the Patient 'as Descriptor' 'Unit of Meaning"

Integrate all sources of information to develop a procedural or therapeutic plan that is safe, patient-centred, and considers the risks and benefits of all approaches (Medical Expert)
Communicate using a patient-centred approach that facilitates patient trust and autonomy … (Communicator)
Conduct a patient-centred interview, gathering all relevant biomedical and psychosocial information (Communicator)
Integrate, summarize, and present the biopsychosocial information obtained from a patient-centred interview (Communicator)
Develop a differential diagnosis relevant to the patient's presentation (Medical Expert)
Develop an initial management plan for common patient presentations (Medical Expert)
Apply clinical and biomedical sciences to manage core patient presentations (Medical Expert)
Differentiate stable and unstable patient presentations (Medical Expert)
Develop and implement management plans that consider all of the patient's health problems and context (Medical Expert)
Adapt the clinical assessment to the patient's developmental stage (Medical Expert)
Determine the setting of care appropriate for the patient's health care needs (Medical Expert)
Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves (Medical Expert)
Assess patient suitability for psychotherapy (Medical Expert)
Assess patient response to psychotherapy (Medical Expert)
(*2) Assess a patient's suitability to proceed with neurostimulation (Medical Expert)
Recognize when personal feelings in an encounter are valuable clues to the patient's emotional state (Communicator)

Step 3: Identified & Described Patterns

I read each unit of meaning from the milestones and EPAs several times to obtain an overall sense of how patients were indicated in them. Then, I sub-divided each 'unit of meaning' into patterns that described patients, relative to physicians. For example, *patient-centred* indicated that physicians used this as an *approach*. Thus, I identified the pattern of patients as *an approach to care*. Similarly, the phrases *patient presentation* and *patient's health care problems* indicated a clinical presentation for a physician. Thus, I identified the pattern of patients *as presentations and/or perspectives* for physicians. *Appendix B* shows examples of milestones that

I included in each pattern of patient indication. For a quick reference and to depict the process of identifying patterns, *Table 3* offers examples of milestones that I included in the patterns of *patients as approaches* and *as clinical presentations*. In total, eight patterns of patient indication in milestones, and 3 patterns in EPAs, were identified.

Table 3

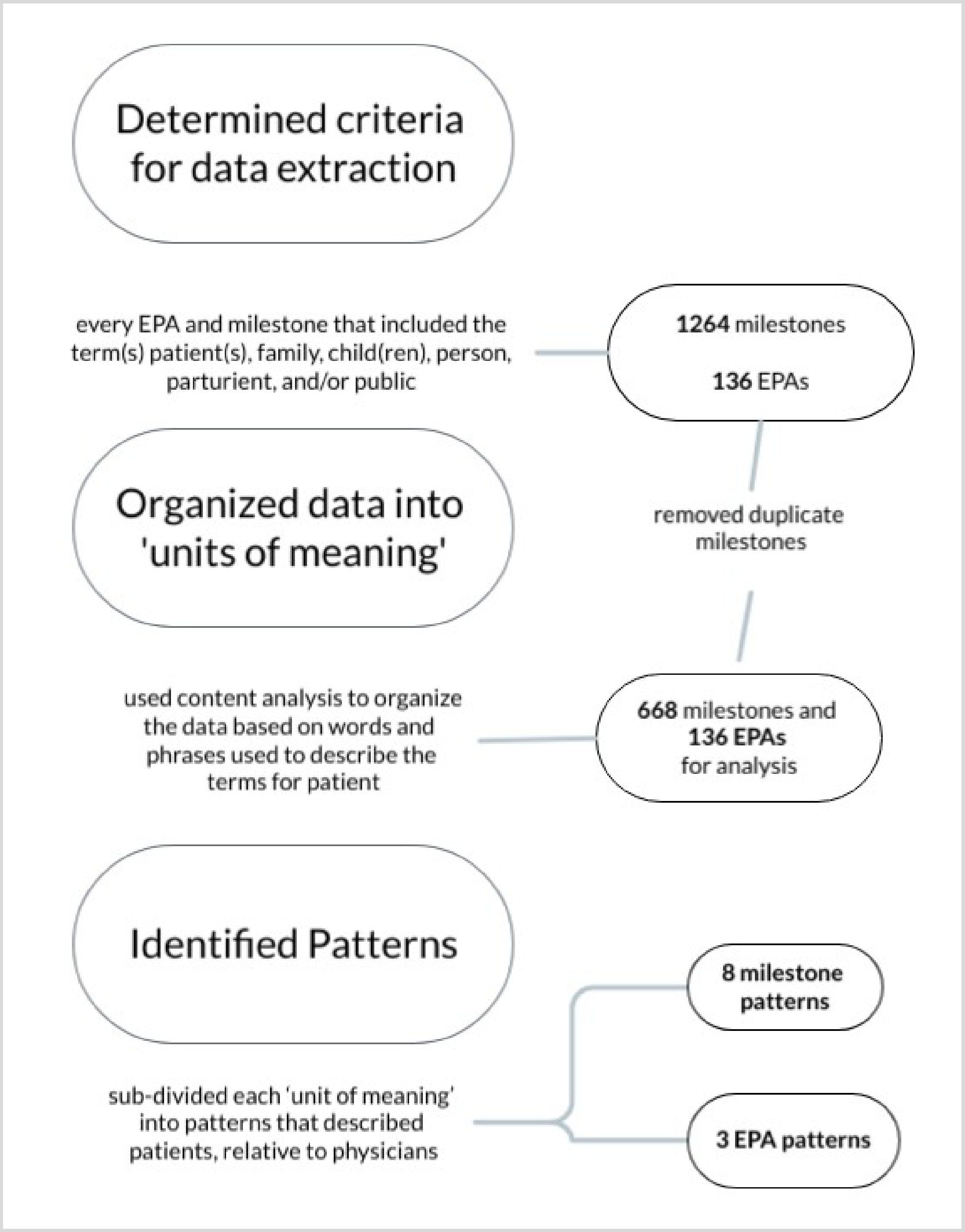
Example of Patterns of Patient Indication in Milestones

Approaches
Integrate all sources of information to develop a procedural or therapeutic plan that is safe, patient-centred, and considers the risks and benefits of all approaches (Medical Expert)
Communicate using a patient-centred approach that facilitates patient trust and autonomy … (Communicator)
Conduct a patient-centred interview, gathering all relevant biomedical and psychosocial information (Communicator)
Integrate, summarize, and present the biopsychosocial information obtained from a patient-centred interview (Communicator)
Clinical presentations
Develop a differential diagnosis relevant to the patient’s presentation (Medical Expert)
Develop an initial management plan for common patient presentations (Medical Expert)
Apply clinical and biomedical sciences to manage core patient presentations (Medical Expert)
Differentiate stable and unstable patient presentations (Medical Expert)
Develop and implement management plans that consider all of the patient’s health problems and context (Medical Expert)
Adapt the clinical assessment to the patient’s developmental stage (Medical Expert)
Determine the setting of care appropriate for the patient’s health care needs (Medical Expert)
Adapt care as the complexity, uncertainty, and ambiguity of the patient’s clinical situation evolves (Medical Expert)
Assess patient suitability for psychotherapy (Medical Expert)
Assess patient response to psychotherapy (Medical Expert)
Assess a patient’s suitability to proceed with neurostimulation (Medical Expert)
Recognize when personal feelings in an encounter are valuable clues to the patient’s emotional state (Communicator)

I manually counted the total number of milestones and EPAs within each pattern of patient indication and used percentages to describe the findings across EPA documents. *Figure 4* provides an overview of the document analysis process:

Figure 4

Document Analysis Process



Trustworthiness

Document analysis is a qualitative research approach that requires interpretation of data to gain background understanding of a topic (Bowen, 2009). To ensure the trustworthiness and quality of my interpretations, criteria including *credibility* (i.e., the confidence), *dependability* (i.e., the stability and repeatability), *confirmability* (i.e., the neutrality or unbiased nature), and *transferability* (i.e., the applicability or 'generalizability'), of the data is required (Lincoln & Guba, 1985). To enhance the overall trustworthiness of my document analysis, I used three techniques. First, I informally wrote analytic memos about how I perceived patient indication in each EPA and milestone, which, ultimately, turned into patterns of patient indication discussed in Part 1 of this study. For example, how I perceived patients in milestones are reflected in the patterns shown in *Appendix B*. *Appendix B* acted as audit trail to my decision-making processes and helped me improve my consistency (*dependability*) and confidence (*credibility*) in grouping milestones into patterns (Miles et al., 2014). Second, I examined the data several times and maintained consistency in how I categorized milestones and EPAs into patterns, which improved the *dependability* and *transferability* of my findings. Finally, to improve the *dependability* and *confirmability* of my findings, I engaged in a peer-debriefing process, where I had a second coder verify patterns of patient indication by independently analyzing two EPA documents. (Connelly, 2016).

Findings

RQ1: How Patients are (or are not) indicated Across EPA Documents

In Milestones. Six-hundred and sixty-eight milestones indicated the term patient(s) from the sample of EPA documents used in this study. I identified eight patterns of patient indication across these milestones: patients as (a) an approach to care; (b) responsibilities; (c) presentations and/or perspectives; (d) sources of information; (e) subjects to be managed; (f) recipients of care; (g) recipients of information; and (h) partners in care. *Table 4* provides a description and examples of each pattern of patient indication in milestones of EPA documents.

Table 4

Description and Examples of Patterns of Patient Indication in Milestones

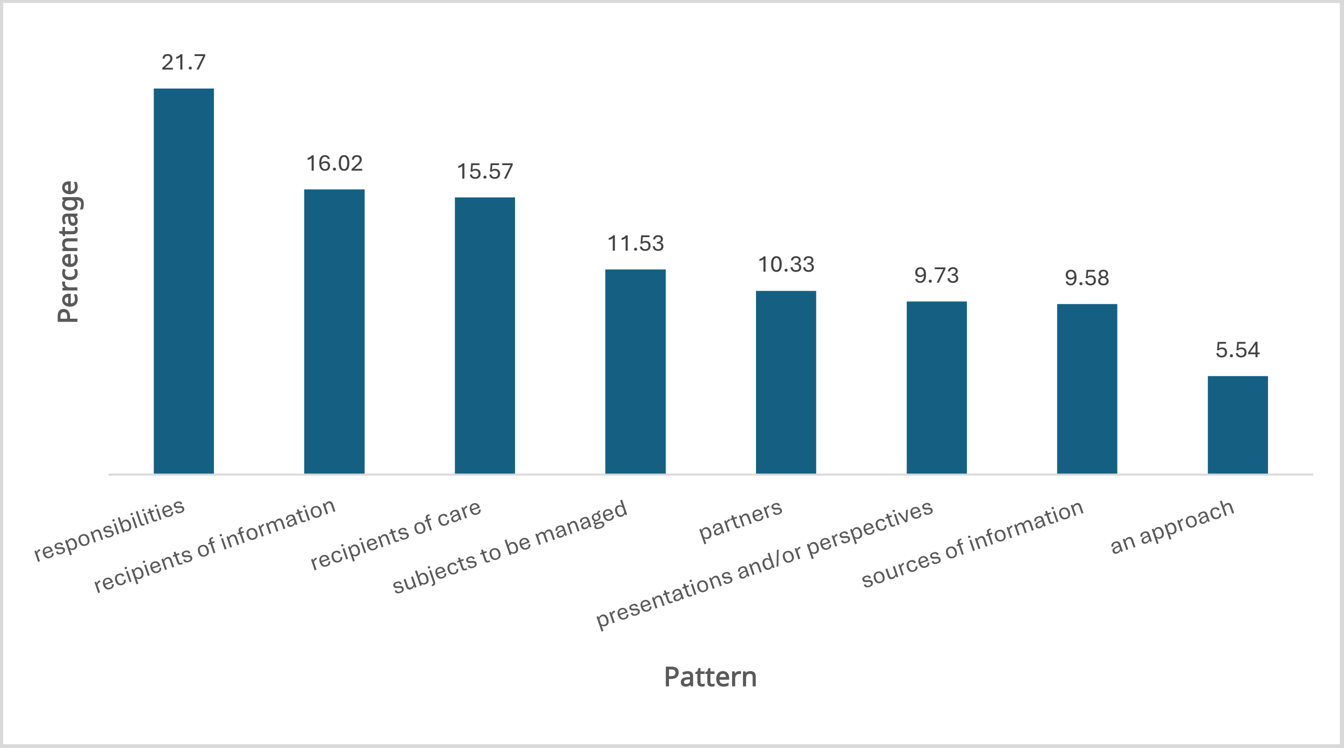
Pattern ***Patients are indicated as …***	**Description**	**Examples of Milestones**
an approach to care	indicates that physicians use patient-centred approaches to communicate and/or deliver care	*Develop and implement patient-centred* management plans *Provide evidence-informed, patient-centred care* of one or more conditions *Communicate using a patient-centred approach* that facilitates patient trust
responsibilities	indicates that physicians have the responsibility to provide safe and quality care to patients and ensure that patients have access to services and resources	*Assess a patient's suitability* to proceed with [a procedure] *Identify social determinants of health* that may impact on the patient's care *Demonstrate responsibility and accountability* for decisions regarding patient care
presentations and/or perspectives	indicates that physicians consider and/or incorporate patients' clinical presentations and/or perspectives into care plans	Develop a differential *diagnosis relevant to the patient's presentation* Select investigations and therapies *appropriate to the patient's goals of care* Establish priorities for the clinical encounter, *incorporating the patient's perspectives*, *preferences* and care needs
sources of information	indicates that physicians use, collect, summarize or synthesize patients' information for various medical reasons	*Ascertain the patient's … response* to treatment *Gather information about the patient's* beliefs, values …

Pattern ***Patients are indicated as …***	**Description**	**Examples of Milestones**
		Communicate with the receiving physician, *summarizing patient issues* at time of transfer
subjects to be managed	indicates that physicians organize the flow of patient care, manage the patient encounter, and/or monitor patients' responses to care	Determine appropriate *patient disposition …* A*scertain the setting* of care appropriate for the patient's ongoing health needs Apply … sciences to *manage* common patient presentations
recipients of care	indicates that physicians perform and/or provide care *to* or *for* patients, or *in* a patient procedure	*Provide care* for patients with undifferentiated presentations *Triage and stabilize patients* who are critically ill Focus the *assessment of a critically ill patient …*
recipients of information	indicates that physicians teach patients or assess patients' understanding	*Assess* the patient's health literacy *Provide clear, accurate information* and explanations to the patient *Share information,* and *validate understanding* of the patient …
partners in care	indicates that physicians engage, work or collaborate ***with*** patients in care	… *engage the patient* and family in shared decision making ... *help the patient* make informed decisions *Work with the patient* to address determinants of health

Of the 668 milestones, patients were indicated **most to least prevalently** as (a) responsibilities of physicians (145; 21.70% of milestones); (b) recipients of information, or those being taught by physicians (107; 16.02% of milestones); (c) recipients of care (104; 15.57% of milestones), (d) subjects to be managed by physicians (e.g., during referrals or transfers/handovers) (77; 11.53% of milestones); (e) partners in care (69; 10.33% of milestones); (f) presentations and/or perspectives to be incorporated into care plans by physicians (65; 9.73% of milestones); (g) sources of information for physicians (or those to gather information from; 64; 9.58% of milestones); and (h) an approach (e.g., patient-centred approach) to care (37; 5.54% of milestones). *Figure 5* illustrates the above findings:

Figure 5

Patterns of Patient Indication in Milestones of EPA Documents



As shown in *Figure 5*, patients as partners, indicating that patients may have opportunities to work with physicians in care and medical education, ranks 5th among other patterns.

In EPAs. One-hundred and thirty-six EPAs indicated patients in the sample of EPA documents used in this study. I identified three patterns of patient indication across these EPAs: patients as (a) recipients of care; (b) subjects to be taught and/or worked on; and (c) clinical conditions or subjects to be managed. *Table 5* provides a description and examples of patterns of patient indication in EPAs.

Table 5

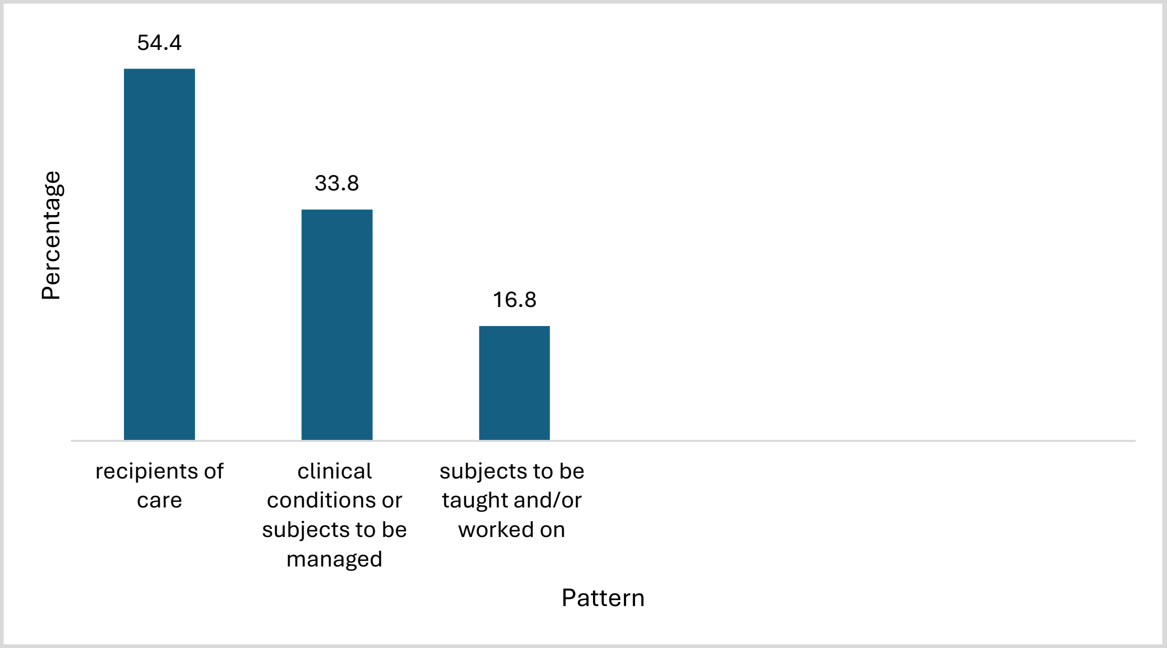
Description and Examples of Patterns of Patient Indication in EPAs

Pattern ***Patients are indicated as:***	**Description of Pattern**	**EPA Examples**
recipients of care	indicates that physicians do something *for* a patient (e.g., conduct an assessment or treatment), or integrate skills *into* patient care	Propose or provide management, assessment and/or consultation *for patients* *Provide care for patients* (with various clinical conditions) Advance patient care Manage all aspects of care *for* patients Integrate the principles and skills of psychotherapy *into patient care*
subjects to be taught and/or worked on	indicates that physicians provide care *to* a patient or perform an assessment *of* a patient	*Stabilize patients* who are critically ill *Perform an assessment of* uncomplicated patients, or of patients with multiple traumatic injuries *Provide care to* a low-risk population *Initiate resuscitation and diagnosis of patients* with life-threatening conditions
clinical conditions or subjects be managed	indicates that physicians manage patients with clinical conditions, or transfer them	Apply approaches to the *management of patients* with a common or complicated medical presentation(s) Assess or *diagnose and manage patients* in whom there is uncertainty in diagnosis or there is a medical or surgical condition *Manage patients presenting* with [a condition]

As shown in *Figure 6*, of these 136 EPAs, patients were indicated **most to least prevalently** as (a) recipients of care (74; 54.4% of the EPAs); (b) clinical conditions or subjects to be managed (46; 33.8% of the EPAs); and (c) subjects to be taught and/or worked on by physicians (16; 11.8%).

Figure 6

Patterns of Patient Indication in EPAs



As mentioned, in the EPA data extraction sheets, I included eligible assessors of each EPA. Three (2.21%) of the 136 EPAs that indicated patients named patients as possible assessors. These three EPAs were from the Physical Medicine and Rehabilitation EPA document and included:

Assessing and managing patients with non-emergent commonly encountered medical and surgical issues.

Identifying, assessing, and providing initial management of patients with emergent and urgent medical issues …

Leading interprofessional meetings

Summary of Part 1 Findings

The findings from Part 1 of this study suggest that patients are indicated in EPA documents in passive positions, compared to physicians. Few (69; 10.33%) of the sampled milestones indicate patients as partners, such that they may have opportunities to *work with* residents during EPAs. None of the sampled EPAs indicate patients as partners, and only three name patients as potential assessors.

Chapter 5: Part 2 Interviews with Those Involved with EPAs

This chapter provides an overview of Part 2 of this study, where I conducted one-on-one semi-structured interviews with those involved with EPAs. In Part 2, I aimed to explore three areas: (a) how (or if) patients were envisioned being involved in the teaching and assessment of EPAs, as EPA documents were created; (b) how (or if) those involved with EPAs believed patients could (or should) be involved in the teaching and assessment of EPAs; and (c) what those involved with EPAs perceived as barriers to patient involvement in the teaching and assessment of EPAs. The following research questions guided Part 2 of this study:

2. *During the creation of EPAs, how were patients envisioned to be involved (or not involved) in teaching and assessing EPAs?*
3. *How can patients contribute to teaching and assessing EPAs?*
4. *What are the perceived barriers to involving patients in teaching and assessing EPAs?*

In the following sections, I detail my recruitment process, how I developed the interview guide for data collection, my data collection and analysis processes and the steps I took to establish the trustworthiness of my findings of Part 2. I conclude this chapter with findings from the interviews.

Participant Recruitment & Characteristics

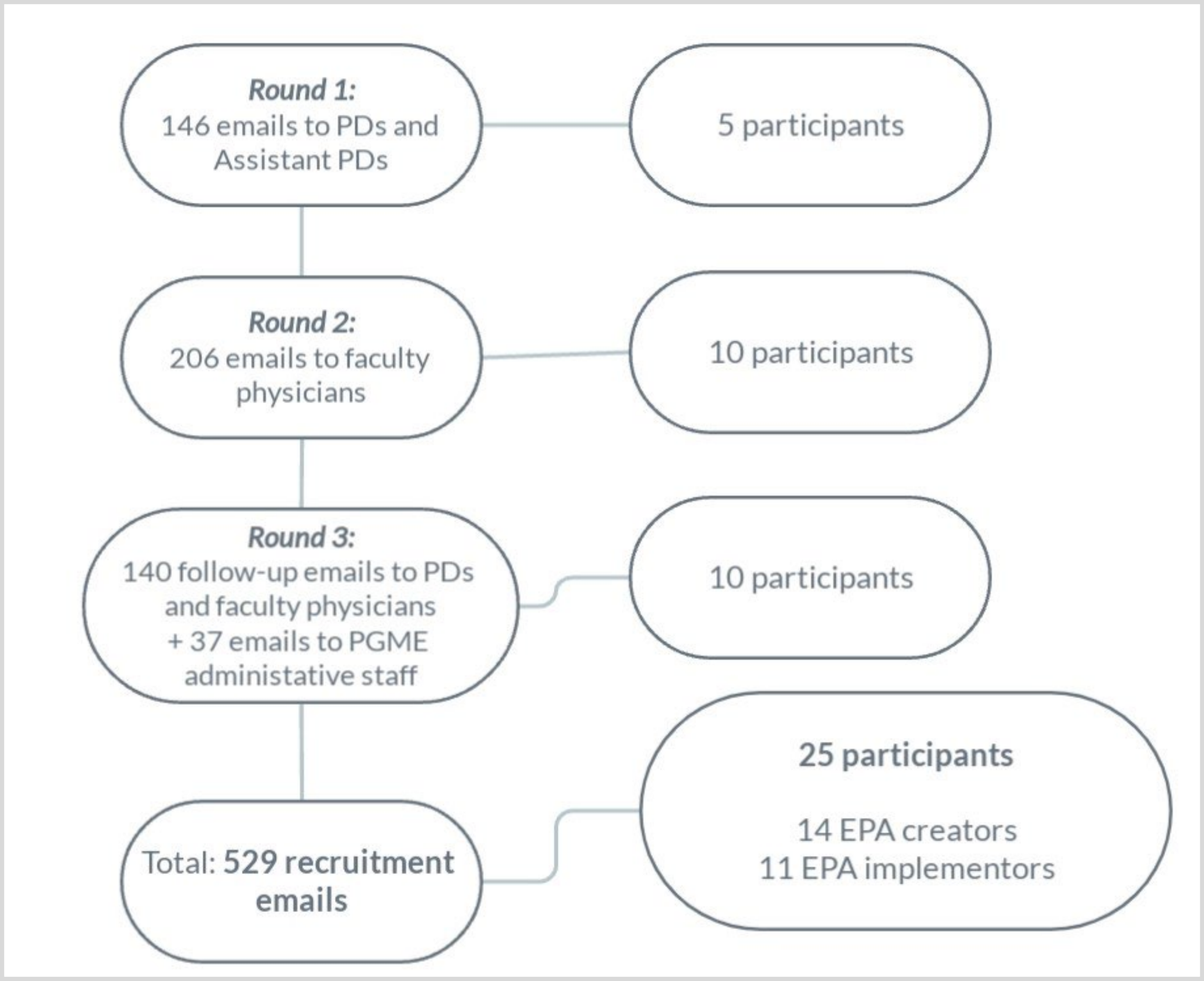
I aimed to recruit 25-30 participants (i.e., those involved with EPAs). I purposefully sampled ‘key informants’ – those who have experiences of the phenomena under study (Patton, 2015). I remained cognisant that those involved with EPA creation are not made public, and my initial outreach may be to wrong population; there may be a lack of interest from recruits on the topic of patient involvement in CBD; and many recruits are busy clinical physicians, who lack time for interviews. Thus, I also used a snowballing technique to extend outreach. Specifically, I asked all recruits in their initial recruitment letter to forward my study information to colleagues who may also have experience with teaching, assessing and/or creating EPAs.

I began by reaching out to residency PDs because they are most likely to have been present during EPA creation workshops led by the RCPSC and, thus, would be able to offer valuable contributions to RQs 2, 3 and 4 of this study. However, PDs have limited time for research participation. Therefore, I expanded participation eligibility to those who have experience with teaching and assessing EPAs in CBD and who could, thus, offer valuable feedback to RQs 3 & 4 of this study. I recruited those involved with EPAs from the same specialties as the EPA documents indicated in Part 1 of this study, from across the 14 English-speaking medical schools (or 103 speciality programs) in Canada.

Upon ethics approval (Re: *Appendix A*) from the University of Ottawa Research Ethics Board (REB), I engaged in three rounds of recruitment for this study. *Figure 7* shows my recruitment process.

Figure 7

Recruitment Process



In each recruitment round, I emailed recruits (i.e., PDs, Assistant PDs, faculty physicians whose biographies indicated potential for involvement with EPAs, and PGME administrative staff) a Recruitment Letter (See *Appendix C*) and Information Letter (See *Appendix D*). In Round 1, I sent 146 emails to PDs and Assistant PDs. In Round 2, I sent 206 emails to faculty physicians. In Round 3, I sent a total of 177 recruitment emails, consisting of 140 follow-up emails to PDs, Assistant PDs and faculty physician who had either not replied in preceding recruitment rounds or who had expressed interest in participating but could not commit at that time. I also sent 37 new recruitment emails to PGME administrative staff. A total of 529 recruitment emails were sent. Twenty-five people participated, of which 14 identified that they were involved with EPA creation.

Instrument Development

Interview Guides

I designed an interview guide (See *Appendix E*) to explore what those involved with EPAs think about patient involvement in the teaching and assessment of EPAs. I used published literature, the conceptual framework of this study and findings of Part 1 (i.e., how patients are indicated in EPA documents) to inform my interview guide. I also used Miles', Huberman's, and Saldana's (2014) philosophy to qualitative analysis (discussed further below), which acknowledges that data collection is an iterative process and interview guides should adapt as new data emerges. Interviews that I conducted early in the data collection phase suggested that those involved with EPAs do not focus on individual milestones when teaching and assessing EPAs; instead they look at them holistically. Thus, I modified research questions 2, 3, 4, & 5 by focusing less on 'specific milestones' that patients could teach and assess. Rather, I asked interviewees if patients can be involved in teaching and assessing EPAs, and if so, how? If interviewees shared specific milestones that patients are (or could) be involved with, this happened organically, without me asking question about milestones directly. I used a semi-structured interview approach to provide participants with flexibility to discuss RQs 2,3 & 4 in meaningful ways to them (Magnusson & Marecek, 2015). *Table 6* shows the dimensions of each of my interview questions.

Table 6.

Part 2 Interview Guide Dimensions and Questions

Research Questions	***Dimension***	***Corresponding Interview Question(s)***
How did those involved with EPAs, from selected specialties, envision patients being involved (or not being involved) in the teaching and assessment of EPAs, during EPA document creation?	• Participant characteristics • Personal perceptions on the nature of patient involvement in EPA creation	Queston 1 Questions 2 & 4
How do those involved with EPAs believe patients could (or should) be involved in the teaching and assessment of EPAs?	• Personal perceptions of patient involvement in the assessment and teaching of EPAs	Questions 3, 5, & 7
What do those involved with EPAs perceive as barriers to patient involvement in the teaching and assessment of EPAs?	• Personal perceptions of external factors that impact patient involvement	Question 6

Data Collection

I conducted semi-structured interviews between mid-May to the end of November 2022. Prior to each interview, I emailed participants a consent form (See *Appendix F*) and provided them with opportunities to ask questions about the study before their interview. I conducted interviews via Zoom, Microsoft Teams or by phone. Each interview was audio-recoded, with the permission of each interviewee. Prior to each interview, I reminded participants that there are no right or wrong answers, they could choose to not answer any question that they did not want to answer, and their privacy would be protected during data collection, analysis, and reporting of findings. I aimed to promote an open and accepting environment so that participants felt comfortable sharing their perspectives with me (Merriam & Grenier, 2019).

I began each interview by asking participants how (or if) they were involved in EPA creation. This aided in establishing a relaxed conversation with participants and set the focus of the interview (Magnusson & Marecek, 2015). If participants indicated that they were directly involved in EPA creation, I asked them questions about how patients were discussed in the teaching and assessment of EPAs and milestones as they were created (i.e., interview questions 1, 2 & 4 in the interview guide; Re: *Appendix E*). I also asked them about their perceptions of how (or if) patients could (or should) be involved in the teaching and assessment of EPAs and milestones (interview question 6) and barriers to involvement (i.e., interview questions 3, 5, & 7).

If participants indicated that they were not involved in EPA creation but were involved in the teaching and assessment of EPAs, I focused interview questions on how (or if) patients could (or should) be involved in the teaching and assessment of EPAs and barriers to patient involvement (Questions 3,5,6 & 7 of the interview guide; Re: *Appendix E*).

I ended each interview by asking participants if there was anything else that they would like to discuss about patient involvement in EPAs, which provided them the opportunity for final comments and remarks (Magnusson & Marecek, 2015; Merriam & Grenier, 2019). Overall, each interview lasted between 20-30 minutes.

Data Analysis

I used Miles', Huberman's, and Saldana's (2014) approach to analyze the data in this study for three reasons. First, the approach allowed me to inductively code data and find themes that would answer the research questions at hand (i.e., RQs 2, 3 & 4). Although other methods exist to thematically analyze qualitative data, Miles and colleagues describe in detail a flexible and iterative approach to coding and categorizing data, which makes it appealing to the novice researcher and graduate student.

Second, Miles' and colleagues' (2014) approach allowed me to display the data clearly and concisely in a chart (or matrix) organized around themes. It allowed me to group similar quotes together that answered each RQ, the number of participants who contributed to each theme and my own analytic memos and reflections. It also helped me track deviations from a theme, as well as illustrate the main findings in thematic arrays. Thematic arrays provide readers with an 'at a glance view' of the findings of each RQ.

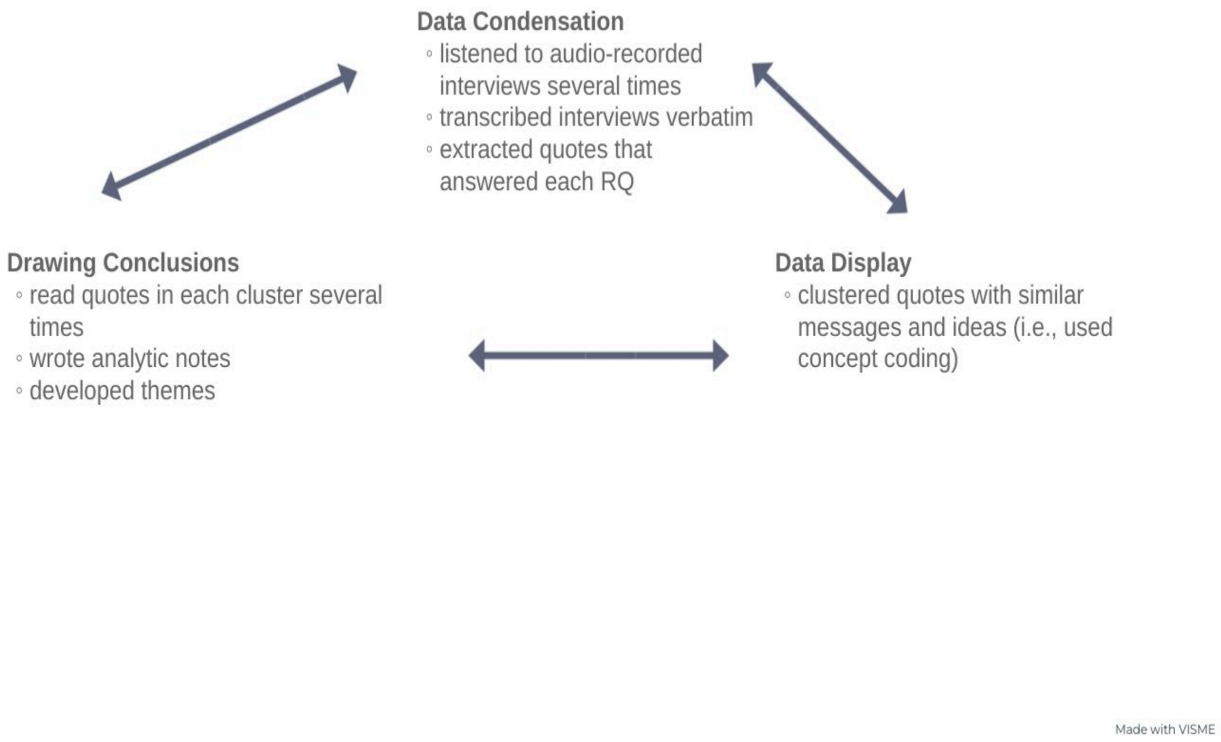
Finally, Miles' and colleagues' approach to data analysis enabled me to "fill in the gaps or test new hypotheses" during data collection (Miles et al., 2014, p. 62). The authors argue that analysis should begin during the data collection process because it enables researchers to adapt their interview questions in response to emerging themes, enrich discussions with participants and improve overall data collection. Thus, Miles' and colleagues' approach allowed me to adapt my interview guide as I gained knowledge and insight from interviewees.

To analyze the data, I used Miles, Huberman, and Saldana (2014) 3-step cycle: (a) data condensation, (b) data display, and (c) drawing conclusions. This approach is cyclical, allowing researchers to move freely between steps, as findings evolve.

I depict my analysis process for RQs 2,3 & 4 in *Figure 8* and describe the process below.

Figure 8

Analytic Process for Interview Data



First, I condensed the data by listening to and transcribing participants' audio-recorded interviews verbatim, extracting relevant quotes and organizing them based on the RQ that they answered. Second, I clustered quotes with similar messages and ideas together, coded these clusters using the broader meaning of what participants said (i.e., concept coding) and wrote analytic notes. Finally, I read the quotes in each cluster several times, used the coding to draw conclusions about themes and chose exemplar quotes for each theme.

Trustworthiness

Analysis of qualitative data relies on researchers' interpretations of meaning to draw conclusions about research findings. Thus, as previously mentioned in the Trustworthiness section in chapter 4, researchers must take steps to ensure the *credibility* (i.e., confidence), *dependability* (i.e., repeatability), *confirmability* (i.e., unbiased nature), and *transferability* (i.e., applicability or generalizability) - the overall trustworthiness - of their interpretations (Lincoln & Guba, 1985). In Part 2 of this study, I took several steps to ensure that my interpretations of what participants said about patient involvement in the teaching and assessment of EPAs were truly representative of their own thoughts, opinions and perceptions on the topic.

To improve the *credibility* and *dependability* of my findings, I wrote analytic memos (i.e. short narrations that documented my reflections and thought processes as I analyzed participants' quotes (Miles et al., 2014, p.88). These memos acted as an audit trail to my final conclusions and themes, helping me view with confidence my decision-making processes. I provide examples of analytic memos in *Appendix G*. To further improve the *credibility* and *confirmability* of my findings in Part 2, I used the findings from Part 1 document analysis as a triangulation strategy (Merriam & Grenier, 2019). Specifically, my Part 1 document analysis suggested that patients are not provided opportunities to teach or assess EPAs. Similarly, Part 2 interviews with those involved with EPAs suggested that patients are not involved in the teaching and assessment of EPAs in practice. The alignment of Parts 1 & 2 findings suggests that my Part 2 interpretations are likely correct. To improve the *credibility* and *transferability* of my findings from Part 2 of this study, I engaged in writing 'thick descriptions' about my conclusions and themes within the Findings section of this chapter (Lincoln & Guba, 1985). These thick descriptions ensured transparency in my conclusions, so that the reader could understand the contexts from which I was drawing such conclusions. Finally, to improve the *credibility* and *confirmability* of my findings, I practiced bracketing by routinely asking myself whether I was projecting my own biases onto what participants were telling me, and I took moments to reflect on differing perspectives than my own. This technique helped me remain open to new ways of thinking about the phenomenon under study, so that my own biases did not take over.

Findings

Twenty-five participants (i.e., those involved with EPAs) were involved in Part 2 of this study. Fourteen (56%) were involved in EPA creation, as well as in the teaching and assessment of EPAs. Eleven (44%) were solely involved in the teaching and assessment of EPAs. Thus, all 25 participants had the background and knowledge to answer RQs 3 & 4 in this study, and 14 could answer RQ 2. *Table 7* provides an overview of participant characteristics.

Table 7

Participant Characteristics

Involvement with EPAs	**Participant Role**	**Number of Participants**	***P#***	**Specialty**
EPA creation (and teaching and assessing EPAs)	**Current PD or Assistant PD**	6	P1, P3, P7, P9, P20, P21	Gen. Surg., ANESTH, Gen. Surg., Psychiatry, EMERG, GIM
	PD at time of EPA creation	3	P5, P12, P25	OBGYN, PM&R, ANESTH
	RCPSC Specialty Committee Member	2	P8, P10	EMERG, PM&R
	Competency Committee Member	1	P13	EMERG
	Program Administrator	1	P2	Psychiatry
	CBD Lead	1	P22	OBGYN
Total		**14**		
Teaching and assessing EPAs	**Competency Committee Member**	3	P4, P16, P24	OBGYN, EMERG, GIM
	CBD Lead	1	P19	Gen. Surg.
	PD (after CBD launch)	2	P17, P23	EMERG EMERG
	Academic Manager	1	P6	OBGYN
	RCPSC Specialty Committee Member	1	P14	Rad. Onc.
	RCPSC Assessment Committee Member	1	P11	GIM
	Clinical Supervisor	1	P15	GIM
	Postgraduate Dean	1	P18	EMERG
Total		**11**		

GIM: General Internal Medicine; OBGYN: Obstetrics and Gynecology; ANESTH: Anesthesiology; Gen. Surg.: General Surgery; Rad. Onc.: Radiation Oncology; EMERG: Emergency Medicine; and PM&R: Physical Medicine and Rehabilitation.

I present the Findings of Part 2 of this study based on the RQ they answer. I provide Supplementary quotations for each RQ in *Appendix H*.

RQ 2: During the creation of EPAs, how were patients envisioned to be involved (or not involved) in teaching and assessing EPAs?

Two themes emerged as participants in this study explained how patients were envisioned during EPA creation. Patients were envisioned as **subjects for teaching EPAs rather than teachers of EPAs and as formative assessors of EPAs**. I describe each theme below.

Patients are subjects for teaching EPAs rather than teachers of EPAs. Participants expressed that there was “almost no discussion” (**P7**, Gen. Surg.) during EPA creation about how patients could teach EPAs. For example, participants remarked, “Were patients discussed in teaching? Not to my recollection” (**P9**, Psychiatry). Instead, during the creation of EPAs, the participants described how the EPA creators envisioned patients as subjects for teaching EPAs rather than teachers of EPAs. They justified patients as subjects rather than teachers because patients’ needs, expectations, and insights are at the heart of each EPA, explaining that EPAs are already “specific to patient scenarios, …are very patient focused” (**P3**, ANESTH), and “[are] focused on patient care” (**P12**, PM&R). Thus, there was no need to discuss patients as formal teachers of EPAs. Furthermore, they argued that CanMEDs competencies that reflect patients’ expectations and needs from physicians form the basis of each EPA, making EPAs patient oriented. A participant explained

> *We didn’t really talk too much about patients [in teaching EPAs]. In establishment of objectives [of EPAs], we used CanMEDS, and we leaned on that quite a bit because there’s a big public input into that. Each CanMEDS iteration has public involvement, so we used that as a stepping-stone to establish our EPAs* (**P5**, OBGYN).

In essence, participants believed that patients would inevitably teach residents *something* during EPAs by simply being subjects of them.

Participants further justified the lack of discussion about how patients could teach EPAs, explaining that patients cannot teach technical skills, which comprise most of the EPAs. Also, patients do not have an “understanding of the teaching process” (**P1**, Gen. Surg.), which is required to teach EPAs effectively.

Patients as Formative Assessors of EPAs. Participants involved in EPA creation explained that patients were discussed in terms of how they could assess EPAs through 360-evaluations and multisource feedback. They acknowledged that patient assessments are “an adequate and reasonable source” (**P3**, ANESTH) that should be collected. They spoke about how patients could assess “aspects [of EPAs] around communication, relaying information, [and] patient comfort” (P12, PM&R). They also discussed whether patients could (or should) provide feedback on EPAs as competence committee members. A participant explained:

> *There’s a Competency Committee to review the EPA … and there was lots of discussion about having a patient or general public representative on the Competency Committee* (**P7**, Gen. Surg.).

However, participants acknowledged that the idea of having patient assessors of EPAs “wasn’t retained” (**P21**, GIM) past EPA creation workshops.

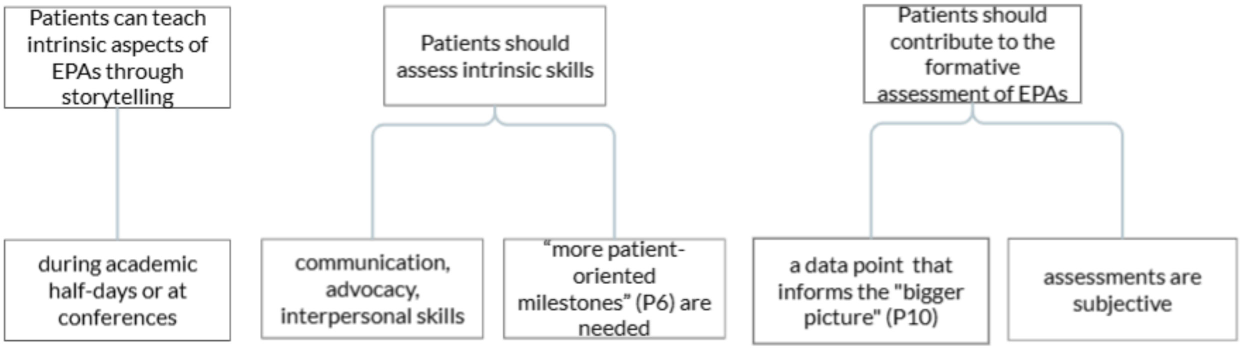
Overall, findings from RQ 2 suggest that EPA creators envisioned patients being involved in assessing EPAs, less in the teaching of them.

RQ 3: How can patients contribute to teaching and assessing EPAs?

Three themes emerged as participants in this study explained that patients can teach non-technical aspects of EPAs through storytelling, should assess non-technical skills, and should contribute to the formative assessment of EPAs. These themes are depicted in *Figure 9* and described in more detail below.

Figure 9

Thematic Array of RQ3 (How can patients contribute to teaching and assessing EPAs?)



Patients can teach non-technical aspects of EPAs through storytelling. Participants believed that patients could teach non-technical skills of EPAs through storytelling (i.e., cognitive, social and personal skills that work together to contribute to quality health care and effective physician-patient interactions; Flin et al., 2008). They explained that it is “beneficial” (**P5**, OBGYN) and “valuable” (**P13**, EMERG) for residents to hear patients’ experiences of illness and healthcare, as they will likely “walk away with something” (**P6**, OBGYN). A participant explained:

> *If I could ask for one thing from my residents, it is that they gain a sense of empathy for what the patients go through. And, to me, that is the best piece of teaching or information that a resident could gain. So, I wouldn’t put any great expectations or pressure on a patient, other than to provide their personal experience of a case, or a treatment or an interaction* (**P3**, ANESTH).

Participants believed that patients’ stories help residents understand and reflect on “patients’ and family needs” (**P13**, EMERG). Patients’ stories are an impactful teaching tool because they are “much more direct” (**P10**, PM&R) than supervisors’ or faculty members’ insights into how a patient might feel when navigating challenges associated with illness. Thus, patients could teach non-technical skills of EPAs through storytelling, offering opportunities for reflective learning.

However, participants did not believe that patients could teach non-technical skills *during* an EPA. Rather, they believed that patients’ stories could be shared at academic half-days and medical education conferences, acting as reflection points to be applied in future performances of EPAs.

Patients should assess non-technical skills. Participants emphasized that patients should assess non-technical skills of EPAs. They explained that patients are the "most appropriate people to assess how an interaction went" (**P3**, ANESTH) and how it made them feel. They gave specific examples of what patients could assess, such as how care plans were discussed with patients (**P3**, ANESTH), "the timeliness of communication" (**P12**, PM&R), and whether a resident was "too jargony" (**P16**, EMERG) or "seemed really aloof" (**P17**, EMERG). They acknowledged that patients should assess residents' "mannerisms" (**P25**, ANESTH), how residents "considered [patients'] feelings and wishes" (**P4**, ANESTH) and whether a resident made patients "feel heard" (**P7**, Gen. Surg.).

A participant (**P6**, OBGYN) provided examples of non-technical milestones that patients should assess:

> *Share information and explanations that are clear, accurate, timely, adapted to the patient's and her family's level of understanding and need* (**P6**, OBGYN)
>
> *Communicate using a patient-centred approach that facilitates patient trust and autonomy and is characterized by empathy, respect, and compassion* (**P6**, OBGYN)
>
> *Discuss with the patient and family any plan for involving other healthcare professionals, including physicians in patients' care* (**P6**, OBGYN).

Participants argued that only patients can "add very valuable feedback of how it felt to be on the other side" (**P22**, OBGYN) of an interaction with a physician. They recognized that non-technical skills would be easily recognized by the patient, but likely "overlooked" by faculty (**P20**, EMERG). A participant explained:

> *There is value in having patients give feedback because a lot of the things we don't observe. So, when a resident goes in and takes a history and does a physical on someone, there's just data there that we don't necessarily see. So, [for example], 'they were very rough when they examined me, or they didn't seem like they cared when they were talking*

> *to me, or they cared a great deal when they talked to me.' You know, that's good subjective data that, frankly, I don't get* (**P20**, EMERG).

Beyond assessing communication and interactional skills of EPAs, participants also expressed that patients should assess advocacy skills. They explained that patients have "really useful information …[that] faculty might not see" (P19, Gen. Surg), such as how residents "worked on their behalf" (**P24**, GIM), "completed [their] insurance in a timely and proper way" (**P10**, PM&R) and worked to "do something extra" for them (**P5**, OBGYN).

However, participants explained that patient assessments are not formally collected. Instead, faculty must "informally go and ask the patient, 'so, how was doctor X?" (**P15**, Rad. Onc.) To improve opportunities patient assessments of EPAs, participants recommended that "more patient-oriented milestones" (**P6**, OBGYN) be written that focus on non-technical skills that patients can assess.

Patients should contribute to the formative assessment of EPAs. Participants believed that patients should contribute to the formative assessment of EPAs, explaining that patients should inform "the bigger picture of the assessment" (**P10**, PM&R). They discussed that patient assessment "is an added component," (**P9**, Psychiatry) to faculty's, but should not be used as "the final O score" (**P23**, EMERG) or to confirm the successful completion of an EPA (**P6**, OBGYN**; P11**, GIM).

Instead, patient assessments of EPAs should be used as "another data point" (**P24**, GIM) and a "piece of the puzzle" (**P19**, Gen. Surg.) that competence committees use to contextualize how a resident is performing on EPAs. A participant explained:

> *I think [patient assessment] is a conversation piece that can be had. Obviously, Competence Committees want to look at holistic data… I think patients bring in a valid area of commentary, as a point of discussion. If you could kind of corroborate [patient assessments], you know [for example] 'resident X is a poor Communicator that we've assessed when we've watched and observed them, [and] patients have also said that,' I think it just provides more feedback to the resident … I don't think validity would be there to use this as a sole assessment piece, to sign off on the EPAs* (**P25**, ANESTH).

Participants worried about patient assessments' subjectivity, making them less suitable for summative assessments. They explained that "there's a lot of rigour that needs to go into creating a summative assessment" (**P1**, Gen. Surg.), but patients' assessments are "not black and white" (**P14**, GIM) and "you're probably going to hear a tonne of different things [from different patients]" (**P13**, EMERG). They felt that if competence committees consider patients' assessments in high-stakes, summative decisions, it should be "amalgamated over a period of time" (**P25**, ANESTH).

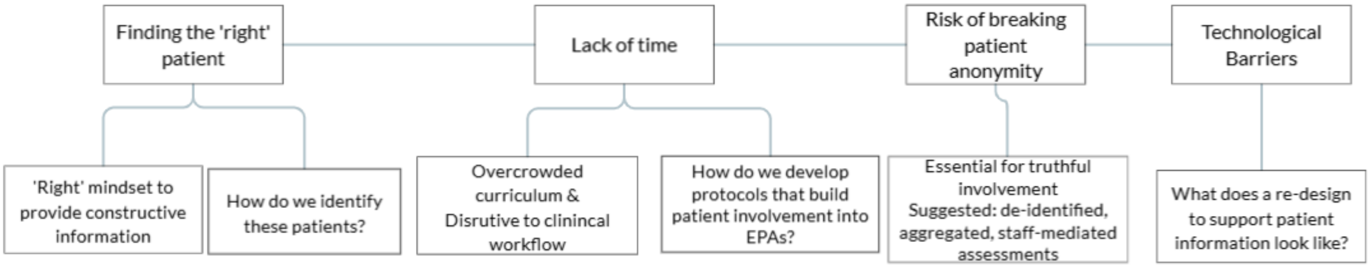
Overall, participants believed that patient assessment should be used formatively, as a learning tool. While it is important to shape residents' future performances of EPAs, it is not rigorous enough to base high-stakes summative decisions on.

RQ 4: What are the perceived barriers to involving patients in teaching and assessing EPAs?

Four themes emerged to describe barriers to patient involvement in teaching and assessing EPAs, including finding the 'right' patient, lack of time, risk of breaking patient anonymity and technological barriers. These themes are depicted in *Figure 9* and are described in more detail below.

Figure 10

Thematic Array of RQ4 (What do those involved with EPAs perceive as barriers to patient involvement in the teaching and assessment of EPAs?)



Finding the "Right" Patient. Participants expressed that it is difficult to find the 'right' patient to teach or assess EPAs because patients must be in the right "state of mind" (**P6**, OBGYN) or "headspace" (**P12**, PM&R) to provide constructive information. They explained that "the sick patient [is] … just worried about getting better" (**P7**, Gen. Surg.) and is "focussed on being a patient" (**P23**, EMERG), not on teaching or assessing EPAs. Thus, asking patients to assess EPAs "when they are not at their best is fully inappropriate" (**P17**, EMERG). A participant further explained:

> *If I'm telling someone that they're paralyzed and never going to walk again, [or] you're telling someone they have ALS and they're terminal but we're going to help support them, or you're giving life-altering news … and then thrust an evaluation in front of them, that's not going to be well received* (**P12**, PM&R).

Selecting patients to teach or assess EPAs must also be done "carefully" (**P9**, Psychiatry) to avoid patients who "focus on extremes" (P7, Gen. Surg.) or who use these opportunities to "complain" (P3, ANESTH; P23, EMERG) or be "hurtful" towards learners (**P5**, OBGYN & **P8**, EMERG). A participant explained:

> *Like, let's say one of my trainees says, 'No sir, I'm not going to prescribe you anymore narcotic medication.' Like, of course they're going to leave terrible feedback about the trainee, right?' So, how do you make sure it's fair and equitable? How do you find a way to gather that data that might be helpful?* (**P17**, EMERG).

Thus, participants suggested that patient assessments "be funnelled through faculty (**P4**, OBGYN), before it reaches residents, and patients be chosen to teach or assess EPAs who have "established rapport" with the learner (P15, Rad. Onc.). Overall, participants acknowledged that patients must be mentally able and willing to teach and assess EPAs, but they did not know how to identify these patients.

Lack of Time. Participants felt that there is insufficient time in the curriculum and clinical workflows to ask patients to teach and assess EPAs. They explained that EPAs are "already packed" (**P4**, OBGYN) with observations. A participant exemplified this by stating:

> *We still have 49 EPAs. Within those EPAs are observations … I think it's about 340 individual EPA assessments over the course of your 5-years of residency training. It's a*

> *huge number ... The degree to which we peruse that [patient feedback] information is obviously limited by resources and time. It would just be impossible [to collect patient feedback as a requirement of EPAs]* (**P3**, ANESTH).

Participants felt that involving patients adds “another level of evaluation” (**P9**, Psychiatry) for faculty physicians who are already “busy” (**P8**, EMERG), “tapped out” (**P20**, EMERG), and have minimal support for … this type of thing” (**P10**, PM&R). They described patients teaching and assessing EPAs as potentially “disruptive to clinical workflow” (**P12**, PM&R). They feared that a requirement for patient involvement would add “another layer on top of everything” (**P19**, Gen. Surg.) and actually “prolong residencies” (**P15**, Rad. Onc.). As one participant observed, “[In] the current paradigm, where the emergency departments are all underwater, it’s just not real-life to ask patients for teaching and assessing EPAs” (**P17**, EMERG).

To address these challenges, participants suggested that we need a “good way of building [patient involvement] as part of clinical interactions” (P13, EMERG). Furthermore, “we should be looking at solutions for the overwhelming number of EPAs so that time is made for patient involvement” (P19, Gen. Surg).

Overall, participants felt that in a “perfect” (**P17**, EMERG) or an “ideal” (**P22**, OBGYN) world, patient teaching and assessment of EPAs would occur, but they did not know how to support it within the overcrowded curriculum of CBD and busy clinical environments.

Risk of Breaking Patient Anonymity. Participants expressed that they do not know how to involve patients in teaching and assessing EPAs without breaking patient anonymity. They felt that patient anonymity is essential for “truthful” (**P5**, OBGYN) and “honest” (P16, EMERG) involvement, explaining that patients may feel “unsafe” (**P21**, GIM) if they believe “that giving truthful feedback might interfere with the care they receive” (**P22**, OBGYN).

Participants explained that “the logistics of actually capturing the data would be the biggest barrier” (**P2**, Psychiatry). They suggested that patient feedback be “de-identified” and “aggregated” (**P5**, OBGYN) so that no individual patient could be identified. They also offered a “staff-mediated” approach (**P3**, ANESTH), where various members of the healthcare team ask patients to provide assessments of EPAs so that learners and/or medical educators are not privy to which patients were asked. Yet, participants struggled to identify an effective process to protect patient anonymity, especially regarding teaching, and they believed this was a significant barrier to involving patients.

Technological Barriers. Participants identified electronic EPA platforms (e-platforms) as significant barriers to involving patients in teaching and assessing EPAs because e-platforms "don't support patient information" (**P2**, Psychiatry) and require faculty-appointed or RCPSC login credentials, which limits accessibility for patients (**P1**, **P3**, **P9**, **P14**, **P21**, & **P24**). They explained that e-platforms "are huge barriers to getting more extensive feedback" (**P9**, Psychiatry) from patients. E-platforms are only geared toward faculty use, are "user- unfriendly" (**P12**, PM&R**, P14**, GIM) and are "incredibly cumbersome" (**P9**, Psychiatry).

They explained that involving patients in teaching and assessing EPAs using current e-platforms requires workarounds that are "extremely time-consuming" (**P1**, **P3**, **P5**, & **P19**). Participants described these workarounds as having to "come away from Elantra [the e-platform] and somehow be connected back to [it]" (P6, OBGYN), and how support staff would have to be "given pieces of paper that [they] fill in … and input it into the system" (**P1**, Gen. surg.).

Despite acknowledging that e-platforms "need tweaking" (P19, Gen. Surg.), participants expressed uncertainty about effectively re-designing e-platforms to support patient involvement. A participant asked, "how do you bring the patients into your online portfolio? Are these paper-based, are we going back there, or do you give them logins? Is it a survey link?" (**P25**, ANESTH).

Summary of Part 2 Findings

The following research questions guided Part 2 of the present study:

2. During the creation of EPAs, how were patients envisioned to be involved (or not involved) in teaching and assessing EPAs?

3. How can patients contribute to teaching and assessing EPAs?

4. What are the perceived barriers to involving patients in teaching and assessing EPAs?

Findings support that, although EPA creators think of patients as subjects *for* teaching EPAs rather than teachers *of* EPAs, those involved with EPAs believe that patients can teach non-technical aspects of EPAs through storytelling, if provided this opportunity. EPA creators think of patients as formative assessors, and those involved with EPAs believe that patients should assess non-technical skills and contribute to the formative assessment of EPAs. However, barriers exist that prevent patients from teaching and assessing EPAs, including finding the ‘right’ patient, lack of time, risk of breaking patient anonymity, and technological barriers.

Chapter 6: Integration of Findings & Discussion

Literature suggests that patients *can* and *should* be involved in HPE, including in medical education, but that patients are rarely provided opportunities to be actively involved. Lack of literature on how (or if) patients are actively involved in CBD, namely in the teaching and assessment of EPAs, suggests that patient involvement is lacking in PGME in Canada. To understand this phenomenon further, this two-part study explored (1) how patients are (or are not) indicated in a sample of RCPSC EPA documents (RQ 1); (2) how (or if) those involved with EPA creation envisioned patients in the teaching and assessment of EPAs, as they created EPA documents (RQ 2); (3) how those involved with EPAs believe patients can contribute to teaching and assessing EPAs (RQ 3); and (4) perceptions of those involved with EPAs of barriers to patient involvement in the teaching and assessment of EPAs (RQ 4). Part 1 findings (EPA document analysis) suggest that patients are portrayed passively in EPAs, compared to physicians. Part 2 findings (interviews with those involved with EPAs) suggest that patients can and should be involved in teaching and assessing EPAs, but there are barriers that prevent this.

To make sense of the findings of this study, I integrate them with relevant literature. Before discussing the findings, I provide an overview of the study and offer a summary of its main findings. I conclude this chapter with a reflection of this study's contributions to patient involvement in the teaching and assessment of EPAs and, more generally, CBD.

Overview of the Study

I conducted this study in two parts. In Part 1, I analyzed a sample of eight RCPSC EPA documents for how the term 'patient(s)' is indicated, specifically investigating whether patients are indicated as partners or in passive roles, compared to physicians. In Part 2, I conducted one-on-one semi-structured interviews with those involved with EPAs to understand how (or if) patients are involved in the teaching and assessment of EPAs. The main goals of this study were to understand patient involvement in the teaching and assessment of EPAs, identify barriers, and illuminate meaningful and impactful recommendations for improvements to patient involvement in CBD. I collected data to answer the following research questions:

RQ1: How is patient involvement indicated (or not indicated) in selected RCPSC EPA documents?

RQ2: During the creation of EPAs, how were patients envisioned to be involved (or not involved) in teaching and assessing EPAs?

RQ3: How can patients contribute to teaching and assessing EPAs?

RQ4: What are the perceived barriers to involving patients in teaching and assessing EPAs?

The conceptual framework described in chapter 2 informed my data collection, analyses and interpretations. I ensured the credibility, dependability, confirmability and transferability (i.e., overall trustworthiness) of my findings in Part 1 of this study by writing analytic memos, auditing my decision-making processes, and engaging in peer debriefing (Lincoln & Guba, 1985; Miles et al., 2014). Similarly, to ensure the trustworthiness of my findings in Part 2, I wrote analytic memos, used my Part 1 findings as a triangulation strategy to confirm my interpretations (Merriam & Grenier, 2019), and wrote ‘thick contextual descriptions’ about my decision-making processes. I used my findings from Part 1 of this study to inform interviews with those involved with EPAs in Part 2, as well as to help me contextualize and understand EPAs and milestones, in general.

Summary of the Findings of this Study

Part 1: How are patients indicated within selected EPAs documents (RQ1)?

- Patients are indicated passively, compared to physicians; they are rarely indicated as partners or explicitly named as possible assessors

Part 2: During the creation of EPAs, how were patients envisioned to be involved (or not involved) in teaching and assessing EPAs (RQ2)?

- Patients are envisioned as subjects for teaching EPAs rather than teachers of EPAs
- Patients are envisioned as Formative Assessors of EPAs

How can patients contribute to teaching and assessing EPAs (RQ3)?

- Patients can teach non-technical aspects of EPAs through storytelling
- Patients should assess non-technical skills

- Patients should contribute to the formative assessment of EPAs

What are the perceived barriers to involving patients in teaching and assessing EPAs (RQ4)?

- Finding the 'right' patient
- Lack of time
- Risk of breaking patient anonymity
- Technological barriers

Integration of the Findings within the Literature

This study provides empirical research on (a) how patients are (or are not) portrayed in EPAs and, more generally, PGME in Canada; and (b) the implementation (or lack thereof) of patient involvement in the teaching and assessment of EPAs within the CBD model. Using existing literature on active patient involvement in medical education, I first discuss the finding from this study that patients are not indicated as partners in EPA documents, which limits opportunities for patient involvement in EPAs. Then, I discuss the findings from Part 2 of the study that suggest how those involved with EPAs believe patients can be involved in teaching and assessing EPAs, including barriers to such involvement. As I relate the findings of this study to existing literature, several suggestions to improve patient involvement in the teaching and assessment of EPAs emerge, which I summarize in the following section, *Contributions of the Findings*.

In chapter 2, I presented literature on (a) benefits and challenges of patient involvement in HPE, including medical education, and how patients are (and are not) involved in it; (b) what CBME and CBD are, including challenges to implementation; and (c) the state of patient involvement (or lack thereof) in CBME, including CBD. I argued that active patient involvement in CBD is lacking. Further investigation into how to improve patient involvement in it is needed because literature suggests that patients *can* (and *should*) be involved. Thus, empirical research into how (or if) patients can be involved in the teaching and assessment of EPAs is imperative to improving active patient involvement in CBD.

In Part 1 of this study, I found that most of the sampled milestones indicated patients passively, compared to physicians. I found the same in all sampled EPAs and that patients are rarely named as possible assessors in them. This finding is disappointing because the language we use to describe patients in medical education is a powerful predictor of opportunity (and lack thereof). McLaughlin (2009) explains that language “acts as both a signifier and an external social control” (p. 1114), meaning that how patients are portrayed (or signified) in medical education (including in EPAs) will affect opportunities for active patient involvement (i.e., the external social control). When patients are objectified in medical curricula (e.g., EPAs), such as those to be ‘handed over’ to other HCPs or ‘cases to be managed’ by residents, it sends messages to CBD stakeholders that active patient involvement is not important or valuable and that patients should not have space to teach or assess (McLaughlin, 2009; Ruitenberg & Towle, 2015). Comparatively, if patients are indicated in ways that suggest that patients should work *with* residents on EPAs, it suggests to stakeholders that patients can (and should) have opportunities to teach and assess EPAs.

The finding in this study that patients are not indicated in EPAs and milestones as partners, although disappointing, is not surprising., Humm and colleagues (2021) explain that patients are often discussed objectively and in ‘de-humanizing’ ways in medical education. Similarly, de Groot and colleagues (2020) explain that patients are often conceptualized as ‘sources of information ‘for medical learners. A recent document analysis of the 2005 and 2015 CanMEDS Frameworks, which inform EPAs and milestones, found that most CanMEDS competencies indicate patients in terms of physicians doing something *to* or *for* them, not *with* them (Adam et al., 2023). Recent literature supports that patients are rarely portrayed as partners in medical education.

This study elucidates the need for improvements to how patients are portrayed in RCPSC EPA documents. Although it is unrealistic to expect that every EPA and milestone indicates patients as partners, the extent to which this occurs should be increased in EPA documents. Future iterations of RCPSC EPA documents should portray opportunities for residents and patients to *engage*, *collaborate* and *work together* toward successful EPA completion. Perhaps, this will require EPAs and milestones to be re-written, as those in this study suggest. Patients should also be explicitly named as possible assessors across a multitude EPAs and specialties. Changes to how we talk about patients in medical education are needed so that we can establish a culture in medical education that values sustained, routine, and active patient involvement in EPAs (Bleakley & Bligh, 2008).

Overall, the goal of Part 1 of this study was not to *prescribe* how patients should be indicated in EPAs but rather to spark discussions about this topic. I analyzed EPA documents to explore avenues for patient involvement in teaching and assessing EPAs, which I further explored in Part 2 of this study. The findings from Part 1 that suggest that patients are *not* provided opportunities to teach or assess EPAs aligns with my findings from Part 2 (interviews with those involved with EPAs), which I discuss further, below.

Interviews with those involved with EPAs suggest that patients can be involved in teaching and assessing EPAs. Although EPA creators did not envision patients to be teachers *of* EPAs, those involved with EPAs suggest that patients could teach non-technical skills of EPAs through storytelling. Participants in this study also suggested that EPA creators envision patients as formative assessors of EPAs and that those involved with EPAs believe that patients should formatively assess non-technical skills of EPAs. Recognition from those involved with EPAs that patients can be involved in teaching and assessing EPAs brought with it discussion of barriers to patient involvement, including finding the right patient, lack of time, risk of breaking patient anonymity, and technological barriers.

In terms of *teaching* EPAs, EPA creators assumed that patients would teach residents 'something' by being the subject of EPAs. This finding demonstrates CBD's unprogressiveness regarding actively involving patients in medical education. Specifically, it suggests that patients are predominantly used as teaching *tools* and *materials* of EPAs. It suggests that CBD stakeholders have not 'bought into' the practice of patients as teachers. Further investigation into why this is should be sought. Significant barriers are likely the lack of time and structured guidance for educators on implementing patient involvement. Furthermore, CBD is greatly focused on producing competent physicians, based on technical skills that are often deemed by medical educators as 'unteachable' by the patient.

It was a welcome finding that those involved with EPAs felt that **patients could teach EPAs through storytelling**, as it is a step away from patient as solely 'materials' for teaching (Towle & Godolphin, 2011). Storytelling also adds realism to learners' education and helps them learn empathy, and principles of person-centered care (Cheng & Towle, 2017; Dijk et al., 2020). However, storytelling provides patients with very little autonomy or sustainability in teaching (Towle et al., 2010). Findings from this study indicate that little is being done in CBD to challenge the historical state of patients as learning *materials* or *resources* (Towle & Godolphin, 2011). If patients are to meaningfully and authentically teach EPAs, stakeholders in CBD must discuss innovative ways for this to occur.

Those involved with EPAs justified the lack of discussion of patients as teachers by arguing that EPAs are work-based *assessments, not* teaching tools (ten Cate, 2013; ten Cate & Taylor, 2021). However, this study illuminates that consideration into what teaching *means* in CBD is needed. The teaching philosophy of CBD is *assessment for learning*, which suggests that patients are teachers in their own right when they provide feedback through EPA assessments (Iobst & Holmboe, 2020; Lockyer et al., 2017). However, there are also other ways patients could teach EPAs. For example, using the CBD Coaching Model (RCPSC, 2024a), patients could be trained to mentor residents in EPAs, specifically on complex patient interactions, such as communicating bad news or how to help learners develop care plans that address patients' psychosocial needs (Towle et al., 2014). Patients could also contribute to curriculum development, co-creating and informing the content of EPAs (El-Haddad et al., 2017, 2021; Towle et al., 2010). Thus, to challenge the notion that patients cannot *teach* EPAs authentically and sustainably, it is important for medical educators to consider how (or if) faculty 'teach' EPAs, and where patients fit in relative to this.

During EPA creation, it is not surprising that EPA creators envisioned **patients as formative assessors of EPAs**. Literature supports that patients can (and should) be involved in medical education assessments (Bandiera et at., 2006; Byrd et al., 2020; Moonen–van Loon et al., 2015). Patients add authentic perspectives to assessments (van der Vleuten et al., 2010). Many assessment tools also exist for patient use, such as the Parents' Assessment of Residents Enacting Non-Technical Skills (PARENTS), General Practice Assessment Questionnaire (GPAQ), Doctors' Interpersonal Skills Questionnaire (DISQ), and the Communication Assessment Tool (Chisholm & Askham, 2006.; Khalife et al., 2022; Moreau et al., 2017). Overall, the medical education community recognizes that patients can be involved in assessing learners.

Those involved with EPAs suggested that patients **assess non-technical skills** and **contribute formatively** (rather than summatively) to EPA assessments. Similarly, residents and medical educators have recognized that patients are more adept at assessing non-technical skills than faculty because patients have ‘inside’ knowledge about how an interaction with a physician made them *feel* (Agrawal et al., 2016; Barr et al., 2021; Kangasjarvi et al., 2020; Oswald et al., 2014). Residents have also explained that patient assessments teach them unique perspectives that help them adapt future behaviours and attitudes to improve their delivery of psychosocial care (Byrd et al., 2020).

While those involved with EPAs believed patients should formatively assess non-technical skills of EPAs, they emphasized that patient assessments should not be used to determine high-stake, summative decisions. Similarly, other medical educators have worried that patient assessments are too subjective to be used in summative assessments (Gruppen et al., 2018; Khalife et al., 2022; Moonen–van Loon et al., 2015). The concern is interesting because it presumes faculty and medical educators’ assessments are less subjective than those from patients. Yet, a single point of data - from faculty or patients - should never be used to determine high-stakes, summative decisions (Lockyer et al., 2017; Moonen–van Loon et al., 2015; RCPSC, 2024b; van der Vleuten, 1996; van der Vleuten et al., 2010). Instead, multiple points of feedback, by multiple assessors (i.e., programmatic assessment) should be used to gain a holistic picture of how residents are performing EPAs.

It has been argued that patient assessments add authenticity to assessment data and can be used in high-stakes decisions, with sufficient sampling, contextualization and professional judgment (van der Vleuten et al., 2018). Van der Vleuten & Schuwirth (2005) explain that “any method can be sufficiently reliable, provided sampling is appropriate across conditions of measurement … there is no need for us to banish … instruments that are rather more subjective or not perfectly standardised, provided that we use those instruments sensibly and expertly” (p.312). Thus, I urge medical educators to (re)consider *how* patient assessments are used in EPA assessment, what weight they may have on summative decisions, and how and why assessment methods are chosen over others in the first place.

Identification of barriers that prevent patient involvement in teaching and assessing EPAs emerged as those involved with EPAs spoke about how patients can teach non-technical aspects of EPAs through storytelling, that patients should assess non-technical skills, and that patients should contribute to formative EPA assessments. Barriers to patient involvement in CBD have been attributed to logistical and structural barriers (Ferguson et al., 2017; Nousiainen et al., 2017). For example, medical educators and residents have expressed that they do not know how to initiate patient assessments, including who should solicit them (a logistical barrier) (Chua & Bogetz, 2018; Marcotte et al., 2019). Similarly, those in this study identified logistical barriers of **finding the 'right' patient(s)** to teach and assess EPAs, while also **maintaining patient anonymity** in the process. Medical educators have also expressed that they lack resources and protected time to involve patients in medical education (a structural barrier) (Branfield Day et al., 2023; Khalife et al., 2022; Ott et al., 2022). Similarly, those involved with EPAs identified structural barriers, including **lack of time for patient involvement in teaching and assessing EPAs** and **technological barriers**.

Finding the 'right' patient(s) to teach and assess EPAs requires careful consideration. Similar to those involved with EPAs, medical educators and residents have worried about burdening patients by asking them to assess learners (McMahon-Parkes et al., 2016; Moreau et al., 2019; Rees et al., 2007). Medical students have felt that it is 'self-serving' because patients should only have to focus on getting better (Chua & Bogetz, 2018). Thus, which patients should be involved in teaching and assessing EPAs should depend on the characteristics of the specialty and the needs of the specific patient populations that they serve (Rowland & Kumagai, 2018; Spencer et al., 2000). Ultimately, eligibility criteria will need to be individualized, based on specialty-program, and remain at the discretion of the resident, supervisor and patient themself.

While it is expected that learners will initiate assessments of EPAs (Frank, Snell, et al., 2010; Schumacher et al., 2021), it has been questioned whether this approach is appropriate for patient assessments (Chua & Bogetz; Marcotte et al., 2019; Khalife et al., 2022). Like those in this study, medical educators have feared that learners will only choose patients who will assess them favourably (Branfield Day et al., 2023; Marcotte et al., 2019; Ott et al., 2022). To mitigate this concern, Chua & Bogetz (2018) suggest a team-based approach to soliciting patient assessments, where medical educators, nurses and residents share the responsibility of asking patients to assess EPAs. Similarly, those in this study suggested that patient assessments be aggregated so medical educators and residents are not privy to which patients were asked to assess EPAs. Information sessions can also be offered to patients with the intent of empowering them to initiate constructive information themselves (Chua & Bogetz, 2018; Richardson et al., 2024).

Despite the difficulties associated with finding the ‘right’ patient(s) for EPA assessments, patients have expressed that they *want* to be involved in the teaching and assessment of medical learners because it empowers them to know that they are making a difference in the education of future of physicians (Adam et al., 2021; Romme et al., 2022). Thus, discussions among stakeholders (e.g., residents, educators, governing body representatives, patients, etc.), at local levels (i.e., medical schools), should occur so that protocols and procedures that help find the ‘right’ patients to teach and assess EPAs can be developed.

If patients feel that their assessments of EPAs are not anonymous, their assessments may not be truthful (Speers, 2008; Stickley et al., 2010; Pal et al., 2014). Thus, protecting patient anonymity is extremely important to the validity of patient assessments of EPAs. Those involved with EPAs illuminate that there is a lack of guidance for medical educators on how to protect the anonymity of patient assessments. Beyond suggestion that patient feedback be ‘de-identified’ by collating it together, very little guidance on protecting patient anonymity is available (Pal et al., 2014). Those in this study illuminate that further research on strategies for anonymizing patients in teaching and assessing EPAs is needed.

In the interim of finding strategies to protect patient anonymity in teaching and assessing EPAs, psychological safety for patients can be established (Madireddy & Rufa, 2024). Establishing psychological safety means patients feel comfortable providing residents with honest and constructive feedback and do not fear repercussions from learners knowing their identity. To establish psychological safety, patients and residents need education and must be reminded of the intent of assessing EPAs, which is to help learners grow as professionals, not to punish them (Madireddy & Rufa, 2024). In effect, both patients and residents would develop a ‘growth mindset,’ where they embrace EPA assessments as learning opportunities, rather than as negative criticisms. Thus, patients’ anonymity during teaching and assessing EPAs would become less important (Caverzagie et al., 2017; Ferguson et al., 2017; Madireddy & Rufa, 2024; Richardson et al., 2024; Schumacher et al., 2021).

However, residents have expressed that a traditional ‘pass/ fail’ culture remains in CBD, even though its intent was to move away from this (Branfield Day et al., 2023). Psychological safety will not be possible in such a culture because residents will resent patients’ negative assessments, as they simply want to pass an EPA and move on (Ferguson et al., 2017;

Richardson et al., 2024). Thus, this study illuminates the importance of establishing protocols that protect patient anonymity in the teaching and assessment of EPAs.

Lack of time to involve patients in medical education is a widely cited issue (e.g., Aube-Peterkin et al., 2023; Crawford et al., 2020; Dubé et al., 2023; Fraser et al., 2016; Marcotte et al., 2019; Miller et al., 2024; Ott et al., 2022; Rabski et al., 2020; RCPSC, 2020). Those involved with EPAs identified that overcrowded EPAs and busy clinical workflows prevent patient involvement in teaching and assessing EPAs. Entrustable professional activities are overcrowded with multiple and frequent observations and assessments, and faculty and residents have explained that they already have trouble keeping up with curricular demands of CBD (Branfield Day et al., 2023; Ott et al., 2022; Rabski et al., 2020). Those involved with EPAs argued that adding patient involvement to EPA requirements is unrealistic in the current state CBD. If patients are to be involved with EPAs, those who create EPAs should explore innovative approaches to make space for patient involvement. For example, improved accessibility to elements (or milestones) that patients can teach and assess could occur (Aube-Peterkin et al). Expert panels, including patients, could work together to determine which elements of EPAs are suitable for patient involvement (El-Haddad et al., 2021). The number of EPAs and/or observations could also be reduced to allow time for patient involvement.

Those in this study suggest that patients be involved in the process of EPA creation. Similarly, El-Haddad and colleagues (2017, 2021) explain that patient involvement in the creation of EPAs makes EPAs more patient-oriented and relevant for patient-assessment, compared to if only educators are involved. Specifically, the authors argue that patients can determine expectations (e.g., desirable and observable behaviours) of physicians and can directly inform EPA sections, including the Description, Competency Domains and Knowledge, Skills and Attitudes (ten Cate, 2013). Thus, the RCPSC should encourage patient involvement in EPA creation workshops, so that EPAs are relevant and appropriate for patient teaching and assessment.

It is worth exploring approaches to make space for patient involvement. Currently, in CBD, residents have reported that they are not receiving constructive and actionable information on EPAs that help them learn because faculty do not have time for it (Aube-Peterkin et al., 2023; Dubé et al., 2023; Leveridge, 2023). Residents are also reluctant to ask for frequent assessments because they feel faculty do not have time for it (Branfield Day et al., 2023; Ott et al., 2022). Instead, they wait to be assessed only when they know they will pass the EPA, which erodes the *assessment for learning* philosophy of CBD. The onus is greatly on the learner to prompt EPA assessments because CBD allows residents to initiate their own assessment schedules (Frank, Snell, et al., 2010; Schumacher et al., 2021). If residents feel like a burden when asking faculty to assess EPAs, they may also feel the same way when asking patients to assess EPAs. Making space for patient involvement in EPAs could help distribute the workload between patients and educators (Aube-Peterkin et al) and it make it more likely that residents receive teaching and assessments that better align with the goals of CBD.

It is disappointing that those involved with EPAs think that involving patients in teaching and assessing EPAs would disrupt clinical workflow because it suggests that there is a disconnect between the goals of healthcare policymakers and medical educators. The goal in healthcare is productivity, meeting the demands of the healthcare industry (Caverzagie et al., 2017; Ferguson et al., 2017; Lucey et al., 2018). Yet, the goal in medical education, specifically CBD, is to provide residents with *time* to learn, to strengthen their skills and to become competent specialists (RCPSC, 2020). Unfortunately, residents will only be as successful in meeting their educational requirements as their environment allows (Ferguson et al., 2017). High demands on Canadian healthcare systems do not foster educational environments that support extra time needed to involve patients in EPAs. Thus, this study illuminates that cultural and structural changes to healthcare that align with the goals of CBD are needed, if sustained and routine patient involvement in teaching and assessing EPAs is to become a reality in practice. However, these changes will take time, resources and an extraordinary amount of restructuring of policy and mindsets in medical education (Ferguson et al., 2017; Marjadi et al., 2022; Schumacher et al., 2021; Spencer et al, 2011).

Finally, those involved with EPAs identified that the user-‘unfriendliness’ of electronic EPA platforms (e-platforms) prevents patient involvement in teaching and assessing EPAs. Current e-platforms are slow, unreliable, and can only be accessed by physicians who have login credentials. Other medical educators have also felt the ‘unfriendliness’ of EPA e-platforms, explaining that current e-platforms, such as Elantra, e-portfolio, One45 and MedSIS, do not support quick and easy access to EPA evaluation forms (Crawford et al., 2020; Miller et al., 2024; Nousiainen et al., 2017). E-platforms also lack search functions that could, otherwise, help residents find appropriate EPAs to work on, review assessments and track EPA completion and progress (Carey et al., 2020; Miller et al., 2024). Thus, this study calls for new and improved electronic EPA platforms that support patient involvement in EPA assessment.

To my knowledge, no studies exist that specify what needs to be done to e-platforms so that patient involvement in the assessment of EPAs can be optimized. However, those involved with EPAs believed that providing patients with login credentials is a good start. Research also suggests several components of e-platforms that could facilitate patient use, such as mobile apps that allow convenient access to patient assessment forms (Crawford et al., 2020; Miller et al., 2024; Nousiainen et al., 2017) and dashboards that track EPAs that patients can assess (Carey et al., 2020). Overall, changes to e-platforms that facilitate patient involvement in EPAs should be discussed among CBD stakeholders and individualized to the contexts and situations in which e-platforms are used.

Overall, those involved with EPAs expressed that they want to involve patients in teaching and assessing EPAs, and they shared how patients can be involved, such as in the teaching of non-technical skills through storytelling, by assessing non-technical skills, and contributing formatively to EPA assessments. However, they identified barriers of implementing such involvement. To overcome barriers, institutional support is needed that improves and streamlines patient involvement in CBD. Shifts in culture and mindset are needed in medical education, which will take time but is not insurmountable. We can begin by addressing challenges at local levels, at individual medical schools and residency programs. Using what those in this study made apparent as challenges, I offer an outline of areas of reform needed to support patient involvement in teaching and assessing EPAs (See *Contributions of the Findings* section).

Contributions of the Findings

The aim of this study was to understand how (or if) patients are involved in the teaching and assessment of EPAs and how (or if) patient involvement can be improved in CBD. By reflecting on how the findings of this study relate to relevant literature, I developed guidance for stakeholders (e.g., medical education researchers, regulatory bodies and policymakers, educators, faculty, residents, and patients, etc.) on how to improve patient involvement in the teaching and assessment of EPAs. I share this guidance in *Table 8*, which outlines areas of patient involvement in need of reform, with possible solutions.

Table 8

Areas in Need of Reform and Possible Solutions for Patient Involvement in the Teaching and Assessment of EPAs

Areas of Reform	Possible Solution(s)
Indication of patients as partners in EPA documents	Use language that portrays patients as partners in EPAs and milestones (structural change) Name patients as possible assessors in EPAs (structural change)
Translation of patient-assessors to practice	Determine specialty/school-specific criteria for recruiting patient assessors (logistical change) Explore how to protect patient anonymity in feedback and foster psychological safety of patients (logistical change) EPA creators restructure EPAs to allow time for patient feedback, such as reducing the number of observations or EPAs needed (structural change) Develop technology that supports patient feedback by creating EPA assessment platforms that provide patients with login credentials and track EPAs that patients an assess (structural change) Create or re-write EPAs that are oriented for patient feedback (structural change) Develop EPA assessment forms for patient use (structural change) Establish a culture that respects patient feedback as a legitimate source of EPA assessment by normalizing routine and sustained patient involvement in medical education, emphasizing an 'assessment for learning' philosophy in CBD, and naming patients as possible assessors in EPA documents (cultural change)
Patient involvement as *teachers* of EPAs	Define *teacher* as it pertains to CBD's philosophy of 'assessment *for* learning' (i.e. teaching through feedback and coaching) (cultural change) Create a culture of acceptance in residency programs for patients as teachers by offering patients improved opportunities and autonomy in teaching across medical education (cultural change)

To my knowledge, this study was the first to explore how patients are indicated in RCPSC EPA documents, how (or if) those involved with EPAs envisioned patients as teachers and/or assessors of EPAs, during EPA creation, and how (or if) those involved with EPAs believe patients could (or should) be involved in the teaching and assessment of EPAs. Findings of this study elucidate that patients are not indicated as potential partners in EPA documents, yet those involved with EPAs believe that patients *should* be involved in teaching and assessing EPAs. It further elucidates that logistical, structural and cultural reform is needed for patient involvement in the teaching and assessment of EPAs to be implemented in CBD.

As mentioned, my conceptual framework for this study, based on Bronfenbrenner's ecological model, assumes that how patients are (or are not) involved in CBD will affect opportunities for patient involvement in HPE, and vice versa. Thus, the findings from this study illuminate that challenges and barriers to patient involvement in CBD exist that reduce opportunities for patient involvement in medical education and, more widely, HPE. However, it adds to our limited knowledge of what must occur before patient involvement in CBD, and, more widely PGME, can be improved.

Chapter 7 Directions for Future Research and Conclusions

In this chapter, I summarize my study and its findings, identify its limitations and suggest areas for further research. I end this chapter with final remarks.

Summary of the Study

This qualitative study consisted of two parts and answered four research questions. In Part 1, I analyzed a sample of eight RCPSC EPA documents to identify *how patients are (or are not) indicated across selected specialty EPAs*. Findings from Part 1 suggest that patients are indicated passively, compared to physicians, in EPA documents. **In the sampled milestones,** patients were indicated as (a) an approach to care; (b) responsibilities of physicians; (c) presentations and/or perspectives that physicians can incorporate into care plans; (d) sources of information for physicians; (e) subjects to be managed by physicians; (f) recipients of care; and (g) recipients of information. **In the sampled EPAs**, patients were indicated as (a) recipients of care; (b) subjects to be taught and/or worked on by physicians; and (c) clinical conditions or subjects to be managed by physicians. Overall, Part 1 findings suggest that patients are not provided opportunities in medical education to be actively involved in teaching and assessing EPAs.

In Part 2, I conducted semi-structured interviews with those involved with EPAs to explore three areas: (a) *how (or if) patients were envisioned being involved in the teaching and assessment of EPAs, as EPA documents were created;* (b) *how (or if) those involved with EPAs believed patients could (or should) teach and assess EPA;* and (c) *what those involved with EPAs perceived as barriers to patient involvement in teaching and assessing EPAs.* EPA creators envisioned patients as subjects for teaching rather than teachers of EPAs and as formative assessors of EPAs.

Those involved with EPAs believed that patients should teach non-technical aspects of EPAs through storytelling, assess non-technical skills, and formatively assess EPAs. They believed that patients could teach non-technical aspects of EPAs at academic half-days and conferences. They explained that patients should assess non-technical skills because patients have experiential knowledge about how a resident made them *feel* during an interaction. Yet, they suggested that milestones must be re-written and co-created with patients so that they are relevant for patient assessment. They also suggested that patient assessments be used by competence committees as a ‘puzzle piece’ to determine high-stakes decisions about residents’ progressions through EPAs.

Those involved with EPAs acknowledged barriers to patient involvement in teaching and assessing EPAs. These included finding the ‘right’ patient(s), lack of time, risk breaking patient anonymity, and technological barriers. Nevertheless, findings from this study suggest that those involved with EPAs *want* to involve patients in teaching and assessing EPA, however, structural, logistical and cultural reform to CBD is needed for this to become a reality.

Limitations of the Study

In chapter 1, I discussed the strengths and contributions of this study. However, limitations also exist. I discuss the main limitations of this two-part study below:

Main limitations of Part 1. There are three main limitations to Part 1 of the study. First, only the EPAs and milestones that included the term(s) patient(s), family, child(ren), person, parturient, and/or public were analyzed. However, there could be EPAs and milestones that insinuate patients as partners in medical education, without directly using any of these included terms. These EPAs and milestones would have been missed in my document analysis. Nevertheless, the large sample of 136 EPAs and 668 milestones included in this study suggests that patient indication as partners in EPAs needs improvement.

Second, I lack experiential knowledge of how patients are represented (e.g., referred to, indicated by, or talked about) by learners, faculty and educators in medical education. Thus, my interpretations of how patients are indicated in EPA documents may not reflect how patients are represented in practice. However, Part 1 of this study acted as an important precursor to my understanding of EPAs and guided my investigations in Part 2 (i.e., exploration of how patients are involved with EPAs in the practice of CBD).

Finally, only the most recent versions of RCPSC EPA documents (as of March 2022) were analyzed in Part 1 of this study. Thus, how patients are indicated in the analyzed versions of this study may not reflect how patients are indicated in other versions. However, the consistency in how patients are indicated *across* specialty EPA documents makes it unlikely that patient indication would change between versions of EPA documents. Furthermore, it was important that I analyzed recent versions of EPA documents as to align findings with the time in which I interviewed participants in Part 2 of this study.

Main limitations of Part 2. There are three main limitations in Part 2 of this study. First, out of a total of 529 emails sent to PDs, Assistant PDs, administrative staff, and faculty physicians, only 25 (4.7%) agreed to participate. Eligible participants consisted of medical educators, many of whom are busy clinicians lacking time to engage in long interviews. Having more participants in the study could have illuminated new insights. However, saturation of data was achieved with the 25 recruits who did participate in this study , and the response rate is similar to another study where PDs engaged in interviews (Moreau et al., 2019).

Second, Part 2 of this study involved a homogeneous sample of participants, those who have backgrounds in medical education and are interested in the topic of patient involvement in CBD. Thus, it is possible that the findings from Part 2 of this study reflect the opinions of a small self-selecting group. Further research that explores allied healthcare professionals' and patients' perspectives on patient involvement in the teaching and assessment of EPAs would be valuable to understanding this phenomenon further, including how to make improvements to it.

Finally, this study only involved RCPSC specialties. Excluding Family Medicine omits potential insights into how patients may (or could) be involved in teaching and assessing EPAs. Family Medicine has core values in providing patients with comprehensive, continuous, and patient-centred, which makes it attune to patient-satisfaction and outcomes. These core values provide opportunities for patient involvement in teaching and assessment in medical education (The College of Family Physicians of Canada, 2021). Holt and colleagues (2010) also identify Family Medicine as the top four specialties to involve patient assessors of competencies related to communication, professionalism, medical knowledge, and patient care. Thus, there may be elements of patient involvement in Family Medicine that RCPSC specialties can learn from when trying to involve patients in teaching and assessing EPAs. Nevertheless, the focus of this study was on CBD, not the Triple C curriculum.

Future Research

This study contributes to the limited knowledge of how patients are (and are not) involved in teaching and assessing EPAs. It elucidates areas in which patient involvement in

CBD is lacking and areas in need of further discussion and research. Based on the findings from this study, the following research questions can inform solutions to barriers to patient involvement in teaching and assessing EPAs:

> How can patients be portrayed in medical curricula as legitimate teachers and assessors?
>
> How should patients be recruited as teachers and assessors in specific specialties?
>
> What strategies are effective at protecting patient anonymity during the teaching and assessment of EPAs?
>
> What milestones can patients teach and assess?
>
> How are milestones created for patient teaching and/or assessment?
>
> How are validated patient assessment forms development for use with EPAs?
>
> What does patient teaching *mean* in CBD and how do patients fit into this definition?
>
> How can electronic EPA platforms be created that support patient involvement?

It is worthwhile exploring these questions from various perspectives in medical education, including from educators, faculty, residents and patients, and those from specialties beyond RCPSC specialties, so that new and innovative solutions to challenges may be sought. Using what this study suggests as areas for improvement for patient involvement in CBD, Family Medicine could guide further research in this topic. For example, this study indicates that faculty do not know how to recruit patients to teach and assess EPAs. Exploring this topic through the lens of Family Medicine may offer helpful solutions that could be applied to CBD.

Conclusion

My thesis explored patient involvement in CBD, namely how (or if) patients are involved in the teaching and assessment of EPAs. Findings from the analysis of selected RCPSC EPA documents suggest that patients are not portrayed in CBD in ways that will support opportunities for patient involvement in the teaching and assessment of EPAs. In alignment with this finding, findings from interviews with those involved with EPAs suggest that patient involvement in the teaching and assessment of EPAs is lacking in practice. Nevertheless, those involved with EPAs believe that patients *should* be involved in teaching and assessing EPAs. This study elucidates areas of CBD in need of reform, as well as possible solutions, to improve patient involvement in teaching and assessing EPAs. It adds to the limited knowledge available on how to improve patient involvement in CBD and PGME, more generally.

I will disseminate the findings from this study to the wider medical education community, in hopes that it informs changes to current CBD practices that allow for patient involvement. The importance of this work must not be underestimated in its potential to improve the education of medical learners and, most importantly, patient outcomes. The finding from this study that those involved with EPAs believe patients can (and should) be involved in teaching and assessing EPAs illuminates the need for the medical education community (at institutional levels) to take patient involvement in PGME seriously, and to work at incorporating it in sustainable and equitable ways for learners, educators and patients.

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Appendices

Appendix A: Ethics Approval Letter

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number	S-02-22-7832
Titre du projet / Project Title	Patient Involvement in the Teaching and Assessment of Entrustable Professional Activities within the Competency by Design Model
Type de projet / Project Type	Thèse de doctorat / Doctoral thesis
Statut du projet / Project Status	Renouvelé / Renewed
Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)	20/04/2022
Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)	19/04/2025

Équipe de recherche / Research Team

Chercheur / Researcher	Affiliation	Role
Holly ADAM	Faculté d'éducation / Faculty of Education	Chercheur Principal / Principal Investigator
Katherine MOREAU	Faculté d'éducation / Faculty of Education	Superviseur / Supervisor

Conditions spéciales ou commentaires / Special conditions or comments

20/04/2022

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Le Comité d'éthique de la recherche (CÉR) de l'Université d'Ottawa, opérant conformément à l'*Énoncé de politique des Trois conseils* (2014) et toutes autres lois et tous règlements applicables, a examiné et approuvé la demande d'éthique du projet de recherche ci-nommé.

L'approbation est valide pour la durée indiquée plus haut et est sujette aux conditions énumérées dans la section intitulée "Conditions Spéciales ou Commentaires". Le formulaire « Renouvellement ou Fermeture de Projet » doit être complété quatre semaines avant la date d'échéance indiquée ci-haut afin de demander un renouvellement de cette approbation éthique ou afin de fermer le dossier.

Toutes modifications apportées au projet doivent être approuvées par le CÉR avant leur mise en place, sauf si le participant doit être retiré en raison d'un danger immédiat ou s'il s'agit d'un changement ayant trait à des éléments administratifs ou logistiques du projet. Les chercheurs doivent aviser le CÉR dans les plus brefs délais de tout changement pouvant augmenter le niveau de risque aux participants ou pouvant affecter considérablement le déroulement du projet, rapporter tout évènement imprévu ou indésirable et soumettre toute nouvelle information pouvant nuire à la conduite du projet ou à la sécurité des participants.

The University of Ottawa Research Ethics Board, which operates in accordance with the *Tri-Council Policy Statement* (2014) and other applicable laws and regulations, has examined and approved the ethics application for the above-named research project.

Ethics approval is valid for the period indicated above and is subject to the conditions listed in the section entitled "Special Conditions or Comments". The "Renewal/Project Closure" form must be completedfour weeks before the above-referenced expiry date to request a renewal of this ethics approval or closure of the file.

Any changes made to the project must be approved by the REB before being implemented, except when necessary to remove participants from immediate endangerment or when the modification(s) only pertain to administrative or logistical components of the project. Investigators must also promptly alert the REB of any changes that increase the risk to participant(s), any changes that considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project or the safety of the participant(s).

Germain ZONGO
Responsable d'éthique en recherche / Protocol Officer
Pour/For **Barbara GRAVES** Président(e) du/ Chair of the **Comité d'éthique de la recherche en sciences sociales et humanités / Social Sciences and Humanities Research Ethics Board**

Appendix B: Examples of Milestones Included in Patterns of Patient Indication

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
Establish a *patient-centred management plan* *Provide* evidence-informed, *patient-centred care* of one or more conditions in the presence of one or more other conditions *Communicate using a patient-centred approach* that facilitates patient trust and autonomy and is	*Address the impact* of the medical condition on the patients' ability to pursue life goals and purposes *Assess a patient's suitability* to proceed with cardiac exercise stress testing *Identify social determinants of health* that may impact on the patient's care *Demonstrate responsibility and accountability* for decisions regarding patient care, acting in the Role of most responsible physician / within the boundaries and expectations of the consultant Role	Develop a differential *diagnosis relevant to the patient's presentation* Develop and implement plans for transition and ongoing care taking into *consideration the patient's clinical state and preferences* … *considering the perspective of the patient* and family (including values and preferences) *as the patient's situation evolves* Develop and implement management plans that	Integrate *new findings* / information and changing clinical circumstances into the assessment of the patient's clinical status *Ascertain the patient's … response* to treatment *Identify patients* for whom the *patient perceived* burden of disease modifying therapy or investigations is greater than the	Determine appropriate *patient disposition*, which may include admission, referral or follow-up Determine the appropriate *medical transport* for safe patient transition to another health care setting *Ascertain the setting* of care appropriate for the patient's ongoing health needs Apply … sciences to *manage*	*Provide care* for patients with undifferentiated presentations *Triage and stabilize patients* who are critically ill Focus the *assessment of a critically ill patient*, performing it in a time-effective manner without excluding key elements *Select investigation strategies* relevant to the clinical question and patient condition	*Assess* the patient's health literacy Communicate effectively with the patient throughout the procedure *Provide clear, accurate information* and explanations to the patient *Share information,* and *validate understanding* of the patient … Apply the principles of behaviour change during conversations with *patients about adopting*	… *engage the patient* and family in shared decision making … *help the patient* make informed decisions … *enhance communication* with patients *Work with the patient* to address determinants of health that affect her and her pregnancy *Work with the patient* to increase their understanding of their illness and health care needs

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
characterized by empathy, respect, and compassion *Use patient-centred interviewing skills* to effectively gather relevant biomedical and psychosocial information *Develop and implement patient-centred management plans* that consider all of the patient’s health problems and context	*Anticipate issues* … in the patient’s transition to a different health care setting, professional or stage in care *Contribute to quality patient care* *Provide safe, efficient, and patient-centred transitions* between health care providers *Facilitate timely patient access* to services and resources *Allocate health care resources* for optimal patient care *Demonstrate responsibility* and accountability *for* decisions regarding *patient care* … *Demonstrate a commitment to high-*	optimize symptom management and *support the patient’s goals of care* Select investigations and therapies *appropriate to the patient’s goals of care* *Adapt care as the* complexity, uncertainty, and ambiguity of the *patient’s clinical situation evolves* Establish priorities for the clinical encounter, *incorporating the patient’s perspectives*, preferences and care needs	clinical benefit *Convey information related to the patient’s* health status, care, and needs in a timely, honest, and transparent manner *Gather information about the patient’s* beliefs, values, preferences, context, and expectations with regards to their care Communicate with the receiving physician,	common patient presentations *Prioritize among patients* on the basis of clinical presentation *Select and sequence investigations based on the priority of patient needs* and the resources available *Manage* disagreements and emotionally charged conversations with patients and/or families *Optimize … patient assessment and management* by	*Position and prep the patient* correctly *Perform a patient assessment* including history and physical exam *Advocate for a patient’s procedure* or therapy on the basis of urgency and available resources Identify the patient *in need of resuscitation* and initiate appropriate resuscitative measures … … selecting the most appropriate option *for* the patient’s clinical status	healthy behaviours *Counsel* and support *patients* regarding risk factor reduction *Select patient education resources* relevant to common General Internal Medicine conditions *Respond* punctually *to* requests from *patients* … *Communicate / convey* the plan of care in a clear, compassionate, respectful, and accurate manner *to the patient* … *providing clear*	Develop and implement management plans that consider all of the patient’s health problems and context *in collaboration with patients* *Work with the patient* to understand relevant options for care Develop a plan to address reproductive challenges, *in collaboration with a patient* Facilitate *discussions with the patient* in a way that is respectful, non-

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation *Communicate using a patient-centred approach* that facilitates patient trust and autonomy and is characterized by empathy, respect, and compassion Establish *patient-centred*	*quality care* of their patients *Maintain a duty of care and patient safety* while balancing multiple responsibilities *Recognize* the occurrence of a *patient safety incident* *Recognize and respond to harm* from health care delivery, including patient safety incidents *Use cognitive aids* such as procedural checklists, structured communication tools, or care paths, to *enhance patient safety* *Optimize the physical environment for patient comfort*, dignity, privacy,	*Integrate the patient's perspective and context* into the collaborative care plan Develop a differential diagnosis *relevant to the patient's presentation* Establish plans for ongoing care for the patient, taking into *consideration her clinical state*, circumstances, *preferences*, and actions … *Address the patient's ideas, fears*, and concerns about pregnancy and her prenatal care	*summarizing patient issues* at time of transfer and clarifying after transition as needed *Synthesize patient information* to determine diagnosis *Seek and synthesize relevant information from … patient's* family … *Convey information* related to the patient's health status, care, and needs in a timely,	anticipating and sequencing needed investigations *Prioritize patients* on the basis of clinical presentations Apply a broad base and depth of knowledge in clinical and biomedical sciences to *manage the breadth of patient presentations* Consider clinical urgency, feasibility, availability of resources, and comorbidities in *determining priorities for the patient encounter*	Select appropriate investigations… for the purpose of *diagnosis and management of a patient* Develop an airway management plan, and alternatives, *for patients* Demonstrate knowledge of the potential risks and benefits *of the procedure and/or intervention… for the patient* … *Provide airway management* for patients with an anticipated difficult airway	*explanations* to the patient … *Answer questions* from the patient and family /about next steps Use strategies to *verify and validate the understanding* of the patient *Apply the principles* of behaviour change during conversations with patients *about adopting healthy behaviours* *Disclose* harmful patient safety incidents to patients … *Educate the patient* with the	judgmental, and culturally safe … *help* the patient and family make informed decisions regarding their health Recognize … an impact on the quality of care, and *modify* the approach to the patient accordingly *Tailor approaches* to decision-making to patient capacity, values, and preferences *Discuss with the patient* any plan for involving other health care professionals,

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
(anesthetic) management *plans …* … develop a (labour) analgesia /anesthetic management plan *that is* safe, *patient-centred …* *Implement a patient-centred care plan* that supports ongoing care, follow-up on investigations *Use a patient-centred approach* that encourages patient trust and autonomy and is	engagement, and safety *Identify patients requiring handover …* *Identify patients or populations* that are not being served optimally] in their clinical practice *Analyze public policy* that affects patients with reproductive challenges *Facilitate timely patient access* to services and resources Contribute to a culture that *promotes patient safety* *Allocate health care resources* for optimal patient care *Demonstrate accountability to*	*Adapt care as the* complexity, uncertainty, and ambiguity of the patient's *clinical situation evolves* *Explore the perspectives of the patient* and others when developing care plans Identify *patients with ... a difficult airway ...* Adapt care … *to* the *patient's clinical situation* Formulate and implement management plans that *consider all of the patient's health problems …*	honest, and transparent manner Identify, verify, and validate *non-verbal cues* on the part *of patients* and their families *Gather information about the patient's* beliefs and values regarding her pregnancy *Communicate* with a patient's primary health care professional *about the patient's care*	*Prioritize issues to be addressed* in the patient encounter *Manage the flow of a challenging patient encounter*, including those with angry, distressed, or **excessively talkative individuals** … *manage core patient presentations* / perioperative assessment in anesthesiology, internal medicine, and surgery / in the pregnant patient *Anticipate intraoperative events* … based	*Perform a pre-anesthetic physical examination* of a patient prior to their scheduled minor procedure… *triaging and coordinating … care of* complex patients … … *optimize and prepare the patient* …for surgical intervention *Position the patient* for the procedure in a skillful, fluid, and safe manner Respond to input from other health care professionals regarding *patient positioning*	use of information booklets, websites, and …to improve their understanding of the planned regional technique and post procedure care *Select patient education resources* related to obstetrical analgesia and anesthesia *Summarize and communicate to ... patients*, the findings of applicable research *Ensure that the patient and family are informed* about the risks	including other physicians, in the patient's care *Work with the patient* to identify opportunities for disease prevention, health promotion, and health protection Consider all of the patient's health problems and context *in collaboration with patients* Develop, *in collaboration with a patient* … a plan to deal with clinical uncertainty Communicate *with patient* in a

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
characterized by empathy, respect, and compassion *Use patient-centred interviewing skills* to effectively gather relevant biomedical and psychosocial information … develop a plan that is safe, *patient-centred* Communicate using a *patient-centred approach* that facilitates patient trust and autonomy	*patients* … by recognizing and *responding to societal expectations* of the profession Optimize the clinical /physical environment for *patient comfort, privacy, engagement and safety* *Address the impact* of the medical condition on the *patient's ability to pursue life goals* and purposes / comfort and quality of life … *Ensure adequate follow up of* the parturient receiving labour analgesia Differentiate outcomes … from *patient safety incidents*	Establish plans for ongoing care, taking into *consideration the patient's clinical state, circumstances, preferences* and actions … Establish a comprehensive … management plan, taking into *consideration the wishes of the patients* … Develop and implement management plans for *common problems or issues* related to patient positioning during surgery *Explore the patient preferences* and	*Synthesize patient information* to determine management plans/ indications for invasive and non-invasive monitoring… *Interpret patient information* provided by invasive and non-invasive monitors, for the purposes of diagnosis and management … *document patient status* on arrival to PACU Elicit a history *for* a	on the patients' medical history … *Prioritize patients* on the basis of acuity of illness / clinical presentation Apply a broad base and depth of knowledge in … *sciences to manage the patient presentations* *Manage the flow of challenging patient encounters*, including those with angry, distressed, or excessively talkative individuals…	Identify strategies to mitigate perioperative complications for individual patients Communicate appropriately with supervising staff if significant concerns are identified *during patient assessment* Seek out and respond to input from the surgical team *when fluid resuscitating a patient* Improve clinical practice by identifying *patients … that are not being optimally treat*ed for pain	and benefits of each screening and treatment option … *explaining to the patient* the risks, benefits, alternatives and rationale for the proposed treatment options *Share concerns … with patients* about goals of care that are not felt to be achievable *Communicate* the plan of care clearly and accurately *to patients* Use strategies to *verify and validate the patient's understanding*	manner that encourages trust and autonomy… Obtain and document informed consent for the planned anesthetic management in a manner that *engages the patients* … … mo*dify the approach to the patient* accordingly *Adapt to the unique needs and preferences of each patient*, and to his or her clinical condition and circumstances … *help* patients and their families make

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
Conduct a *patient-centred interview …* *Establish patient centered-*management plans … *Communicate using a patient-centred approach* that facilitates patient trust and autonomy *Conduct a patient-centred interview*, gathering all relevant biomedical and	*Demonstrate a commitment* to high-quality care for their patients Ensure that the *OR is adequately prepared* … for the patient and proposed procedure *Demonstrate commitment and accountability* for patients in their care *Maintain a duty of care* and patient safety while balancing multiple competing responsibilities Adopt strategies that *promote patient safety* … … *optimize* clinical decision-making, *patient safety*, …	cultural practices regarding blood products when developing care plans *Integrate the patient’s perspective* and context into the collaborative care plan Develop a diagnosis *relevant to the patient’s presentation* *Differentiate stable and unstable patient* presentations Develop and implement management plans that *consider the patient’s health problems* and context	patient prior to their scheduled minor … *Document information about* patients and their medical conditions … Identify, verify and validate non-*verbal cues on the part of patients …* *Convey information related to the patient*’s health status … in a timely, honest, and transparent manner	*Organize the handover* of care to the most appropriate physician or health care professional ... … *Use the time available* in the operating room for the patient and proposed procedure *Manage ethical issues* encountered with patients/families … Assess and *monitor patient adherence* and response to therapy … *manage* patients at risk	Advocate *for a patient’s procedure* or therapy on the basis of urgency and available resources Pay close attention to *the continuing care of the patient* beyond the technical execution of resuscitation … Apply knowledge … to *assess and diagnose patients* … *tailor the selected* psychotherapy to the patient *Administer sedation and apply monitoring*	*Counsel patients* regarding potential postpartum complications *Answer questions* from patients *Assess a patient’s decision-making capacity* *Debrief the delivery with the patient* and family in a timely, honest, and transparent manner *Disclose adverse events to patients* and their families accurately and appropriately *Respond* to patients’ non-verbal	informed decisions regarding their health *Work with patients* to increase opportunities to adopt healthy behaviours / to identify opportunities for disease prevention, health promotion … Respond to an individual patient’s health needs by *advocating with the patient* within and beyond the clinical environment *Engage patients* in the

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
psychosocial information … *develop a diagnosis* … that is safe, patient-centred … *Provide* quality patient-centred care *Implement* (a collaborative) *patient-centered care plans* for patients Use a patient-centered approach / strategies … *Provide* patient-centred care / transitions	*Plan and document follow-up* to harmful patient safety incident *Recognize and act on patient safety issues* in the transfer of care *Demonstrate safe handover* of care … during a patient transition Use referral and consultation as opportunities to *improve quality of care and patient safety* by sharing expertise … *maintain patient wellbeing* as the primary objective *Facilitate timely patient access* to intensive care resources / disability or other insurance benefits	Adapt care *to the* patient's *clinical situation* *Integrate the patient's perspective* and context into the collaborative care plan Develop a diagnosis *relevant to the patient's presentation* Develop and implement management plans that *consider the patient's health problems* and context *Integrate the patient's medical problems* … and current health	Communicate with the patient's primary health care professional *about the patient's care* *Summarize the patient's issues* in the transfer summary … … *giving feedback on the patient status* to the surgical team during the procedure *Map the flow of information* in the care of their patients and suggest changes for quality	of harm to self or others *Manage disagreements* and emotionally charged conversations with patients *Manage* the flow of *patient encounters* … *manage* core patient presentations *Develop a plan for* the *disposition* of the patient … Apply knowledge in clinical and biomedical sciences to *manage the patient presentations*	equipment to [the patient] to optimize patient safety and comfort *Assess* patient *suitability for psychotherapy* *Prepare and position the patient* for the neurostimulation procedure … establish priorities *for patient* care Prioritize the clinical assessment *of a patient* with traumatic injury *Assess patient suitability* to undergo a procedure	communication … *Assess patient's capacity to understand* and appreciate the issues and risks … *Ensure that the patient and family are informed* about the risks and benefits of each treatment option … *Share concerns*, … with patients and families about goals of care that are not felt to be achievable … *counsel patients* appropriately regarding	continuous improvement of patient safety … maintain a therapeutic *alliance with the patient* … *help* the patient make an informed decision *Tailor approaches to patient* capacity, values, and preferences Recognize the values, biases, or perspectives of patients … *modify the approach to the patient* *Work with patients* to address or

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
Integrate results into patient-centered management plans Communicate *using* a patient-centred approach Conduct a patient-centred interview	… advocate for *patients' best interests* *Allocate health care resources* for optimal patient care Contribute to a culture that *promotes patient safety* Apply the science of quality improvement to *contribute to improving systems of patient care* *Ensure patient safety* is maintained when learners are involved *Prioritize the needs of patients* and others … *Demonstrate a commitment to patients* by applying best practices … *Demonstrate accountability to*	status *into the plan of care* … *consider the perspective* of the patient when developing and implementing care plans establish priorities, *considering the perspective* of the patient Adapt care as … the *patient's clinical situation* evolves *Recognize* patients with unstable [conditions] Perform a focused history and physical examination that is relevant to the	improvement and patient safety *Review post-operative patient follow-up* as a source of information on one's own performance … *interpret* treatment effects in improving patient outcome Seek and synthesize relevant information *from* the patient's family… Integrate, summarize, and present	*Manage interactions with patients* when there is discordance regarding decisions *Manage disagreements* and emotionally charged conversations with patients *Manage* time to maintain *patient flow* Allocate time for learners' educational activities while *ensuring patient care … is maintained* *Prioritize patients* based on the urgency	*Set-up, position, and drape the patient* for the procedure *Focus the clinical encounter* … in complex patients Incorporate prevention, health promotion and health surveillance *into patient interactions* Book operative cases *with appropriate … patient preparation* Select … medical imaging in the management *of* patients *Demonstrate appropriate physical exam*	anesthetic choices… *Respond to patients'* non-verbal communication and use appropriate non-verbal behaviours to enhance communication with patients *Assess* a patient's decision-making capacity … *verify and validate the understanding* of the patient … *Respond to patients'* non-verbal *communication* *Provide information* clearly and	modify the determinants of health that affect them and their access to needed health services or resources *Work with patients* and their families to decrease stigma regarding neurostimulation treatments Demonstrate an approach to *working with patients* to advocate for health services or resources … *help* the patient make an informed decision *Work with patients* to

an approach	**responsibilities**	**presentations or perspectives**	**sources of information**	**ones to be managed**	**recipients of care**	**recipients of information**	**partners**
	patients … by responding to societal expectations of physicians *Adapt* the clinical assessment *to the patient's* developmental stage … *promote patient safety* and address human and system factors … *deal with patient … safety* violent situations *Demonstrate responsibility* and accountability for patient care … *Optimize the physical environment for patient comfort*, dignity, privacy, engagement, and safety	patient presentation Synthesize a working diagnosis and case-appropriate differential diagnosis *relevant to the patient's presentation* *Establish plans* for ongoing care, taking into *consideration the patient's clinical state*, circumstances, *preferences*, and actions … *respond to* complications associated with *… changing clinical states of the patients* *Demonstrate effective clinical*	the biopsychosocial information *obtained from a patient* Integrate and synthesize information *about the patient's beliefs, values, preferences*, context, and expectations with biomedical and psychosocial information *Document information about patients* and their medical conditions	of clinical presentation … *manage* complex *patient presentations* *manage the flow* of a patient encounter *Manage patients* in the acute post-operative period … Apply a broad base and depth of knowledge … to manage patient presentations … manage the flow of the encounter … *Conduct a patient encounter* using	*skills* relevant to the patient's diagnosis *Prepare and position the patient* for the procedure Perform assessment of patients *Incorporate* … health promotion … activities *into interactions* with patients *Apply* … resource utilization *in patients* undergoing radiation treatment *Allocate* health care resources *for* optimal patient care	compassionately, *checking for patient understanding* Answer questions *from the patient* … *Demonstrate* attentiveness, interest, and responsiveness *to the patient* *Apply the principles* of behaviour change *during conversations* with patients about adopting healthy behaviours Communicate *to the public* …, the findings of applicable research	address the determinants of health that affect them and their access to needed health services or resources *Work with the patient* to understand relevant options for care *Address with the patient* their ideas about the nature and cause of the health problem, fears and concerns, and expectations of health care professionals Develop and implement management plans … *in collaboration with* the patient

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
	Recognize … the patient's emotional state *Recognize* one's own reaction to patients Identify patients requiring handover … Allocate health care resources for optimal patient care *Balance* clinical *supervision* and graduated responsibility, *ensuring the safety of patients* *Facilitate patient access* to services and resources *Allocate health care resources* for optimal patient care Adhere to occupational safety	*problem solving* to address patient problems … *Communicate* the severity of the *patient's condition* Develop a differential diagnosis *relevant to the patient's presentation* Determine a plan for … the *patient's condition* … *Develop a* differential *diagnosis* relevant *to the patient's presentation /* considering all of the patient's health problems and needs	*Assess patient response* to psychotherapy *Synthesize patient information* to assess indications and risk of surgery / to determine response to treatment, status of the disease … Gather various types of laboratory and pathology / imaging reports and *integrate the information* into patient assessment	an organized framework Consult with other health care professionals to *manage a patient* through radiation therapy Triage and set appropriate priorities when *dealing with single or multiple* patients *Determine if* the *patient* is safe for discharge … Carry out other professional duties … while *responsible for multiple patients* Set appropriate priorities when *managing a*	Demonstrate an awareness of the importance of personal health and emotional well-being while *delivering care to patients* *Perform an assessment* … to identify the unstable patient *Initiate* appropriate monitoring, time-sensitive interventions, and management *in the unstable patient* Apply knowledge … in the *resuscitation of a patient* Perform … assessment *of a patient*	*Identify the learning needs* and desired learning outcomes of others [i.e., including patients] Respond punctually to requests from patients … *Share concerns* about goals of care … with the patient *Convey information* about the procedure, operative findings, and patient status *to the family* Provide information *to the patient*	*Engage in discussions with patient* and family regarding expectations of care *Tailor* approaches ... *to patient capacity, values and preferences* … *help patients* make informed decisions Demonstrate an approach to *working with patients to advocate* for health services or resources *Evaluate with the patients* the potential benefits and

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
	procedures to *ensure patient safety* *Maintain* patient confidentiality Provide analgesia and sedation to *ensure patient safety and comfort* *Demonstrate responsibility* and accountability for … patient care *Provide safe transfer* of care, during patient transitions … *Monitor* patient comfort … *Address the impact* of the medical condition *on the patient's ability* to pursue life goals *Assume primary responsibility* for the longitudinal	… *establish* priorities, *considering incorporating* the perspective of the patient *Ascertain* the patient's perspective on their goals of care Integrate and synthesize information about the patient's beliefs, values, preferences … with biomedical and psychosocial information … recognize when the values, biases, or perspectives of patients, physicians, or other health care professionals may	*Summarize the patient's issues* in the transfer summary … *Integrate and synthesize information about the patient*'s beliefs, values, preferences, context and expectations with biomedical and psychosocial information *Seek and synthesize* relevant *information* from …the patient's family …	*critically ill patient* … *Follow each patient's care* through to disposition	Order / select and interpret investigations aiding in the *diagnosis of the patient* Implement management plans *for the patient* *Recognize a patient* who may benefit from palliative care intervention Prioritize issues to *address in the patient's assessment and management* *Assess a patient's suitability* to proceed with [a procedure]	Apply the principles of behaviour change during *conversations with patients about adopting healthy behaviours* *Respond punctually to requests* from patients … *explain* the risks and benefits of … radiation therapy, *respecting patient capacity* … *Respond to patients'* … communication … *respond to patient* cues	harms of health screening *Work with patients* to address the determinants of health that affect them and their access to needed health services or resources Develop and implement management plans that consider all of the patient's health problems and context *in collaboration with patients* Use shared decision making with the patient Work with patients and their families to

an approach	responsibilities	presentations or perspectives	sources of information	ones to be managed	recipients of care	recipients of information	partners
	management of a cohort of patients … *Identify patients who require a transfer* of care *Recognize near-misses* in real time *and respond* to correct them, preventing them from *reaching the patient*	have an impact on the quality of care	*Document information about patients* and their medical conditions Identify clinical situations in which complexity … may play a Role in the patient encounter and in *gathering information* *Perform* a … history for / of the patient … Identify, verify and validate non-verbal cues on the part of patients		Document relevant *patient care orders* *position* a patient for a procedure	*Share concerns* … with patients … *Answer* questions from the patient *Provide information* … in language that the patient understands *Verify* and *validate* the *understanding of* the patient *Assist patients to* identify, access, and *make use of information* … *Adapt* communication strategies *to the patient’s health literacy* …	understand relevant options for care Collaborate with the patient and their family to confirm goals of care … Adapt to the unique needs of each patient … Communicate effectively with patients … to establish goals of care Tailor approaches to decision-making to patient capacity, values, and preferences … help patients, and their families make

an approach	**responsibilities**	**presentations or perspectives**	**sources of information**	**ones to be managed**	**recipients of care**	**recipients of information**	**partners**
						Communicate to … patients, the findings of relevant research … *Apply the principles* of behaviour change during conversations with patients *about adopting healthy behaviours* Disclose patient safety incidents to the patient	informed decisions

Appendix C: Recruitment Letter to Those Involved with EPAs (Part 2)

Dear Dr. [*insert potential participant's name*],

You are invited to participate in an interview for the above-mentioned study, if you have been involved in the creation of entrustable professional activities (EPAs) for at least *one* of the following Specialties:
1. Anesthesiology; 2. General Internal Medicine; 3. Obstetrics & Gynecology; 4. Radiation Oncology; 5. Rehabilitative Medicine; 6. Psychiatry; 7. Emergency Medicine, or 8. General Surgery.
Participation in this study is based on a first come/first-served basis.

This study aims to explore the perspectives of those who are/have been involved in the creation of specialty-specific EPA documents, specifically about patient involvement (or lack thereof) in them.

Please find attached an Information Letter that describes this study further.
If you have any questions or would like to participate in an interview, please reply to Holly Adam at [insert email] by [*insert date 2 weeks after email was sent*]

If you are unable to participate in this study but you know of colleagues (such as clinical supervisors, experts within your specialty, or other Program Directors) who have been involved in the creation of EPAs (from one of the specialties listed above) and may be interested in participating in this study, I **would appreciate if you would forward this email and Information Letter** to them.

Thank you in advance for your time.

Sincerely,

Holly Adam, RN, PhD(c)
Faculté d'éducation / Faculty of Education
Université d'Ottawa / University of Ottawa

Katherine Moreau, PhD (Supervisor)

Professeure agrégée/ Associate Professor
Faculté d'éducation / Faculty of Education

Université d'Ottawa / University of Ottawa

Appendix D: Information Letter for Those Involved with EPAs (Part 2)

Patient Involvement in Competency-Based Medical Education

Research Team:	Holly Adam PhD (candidate) Faculty of Education University of Ottawa Vanier Hall 5002 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808)	Katherine Moreau, PhD (Supervisor) Faculty of Education University of Ottawa Vanier Hall 5083 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808) kmoreau@uottawa.ca

Invitation to Participate: You are invited to participate in an interview for the above-mentioned study, if you have been involved in the creation of entrustable professional activities (EPAs), either for the RCPSC or your local institution, for *one* of the following specialties: 1. Anesthesiology; 2. General Internal Medicine; 3. Obstetrics & Gynecology; 4. Radiation Oncology; 5. Rehabilitative Medicine; 6. Psychiatry; 7. Emergency Medicine, or 8. General Surgery.

This study is being conducted by Holly Adam PhD (Education) candidate from the University of Ottawa under the supervision of Professor Katherine Moreau. It has been approved by the Research Ethics Board at the University of Ottawa.

Purpose of the Study: The purpose of the study is to explore the perspectives of those who are/have been involved in the creation of specialty-specific EPA documents about patient involvement (or lack thereof) in them. The findings from this study will help to a) inform the ways in which patients may be incorporated into the teaching and assessment of EPAs, to strengthen residents' competencies and skills.; b) determine strengths and limitations of patients' involvement in medical education; and c) identify areas of CBD where patient involvement can be improved.

Participation: Your participation in the study is **voluntary**. You will be asked to participate in a one-on-one interview, which will take place via Zoom or Microsoft Teams at a time that is most convenient to you. You will be asked a few open-ended questions about your perceptions, opinions, and insights about patients' involvement in the teaching and assessment of EPAs. The interview will take approximately **45 minutes** to complete.

Confidentiality and Anonymity: The information that you share in the interview will remain strictly confidential. You will not be asked to state your name in the interview, and only the Research Team members (Holly Adam and Dr. Katherine Moreau) will have access to the recording of your interview.

If you are interested in participating in an interview for this study or would like additional information, please contact Holly Adam. We will email you a copy of the consent form to review, and your consent will be obtained prior to the interview.

If you have any questions regarding the ethical conduct of this study, you may contact the Office of Research Ethics and Integrity via email (ethics@uottawa.ca) or telephone (613-562-5387).

Thank you for taking the time to read this information letter and for considering your participation in this study.

Sincerely,

______________________________ Holly Adam PhD (candidate) Faculty of Education University of Ottawa Vanier Hall 5002 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808)	______________________________ Katherine Moreau, PhD (Supervisor) Faculty of Education University of Ottawa Vanier Hall 5083 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808) kmoreau@uottawa.ca

Appendix E: Interview Guide for Those Involved with EPAs (Part 2)

Hello,

Thank you for taking the time to talk to me about your perceptions of patients' involvement in the teaching and assessment of EPAs within your specialty. My name is Holly, and I will be conducting our interview today. This interview will last approximately 45-minutes, and, with your consent, it will be video/audio-recorded.

This interview is part of a larger study exploring patient involvement in Competence by Design (CBD). The questions will focus on your perceptions and opinions about how patients are (or can be) included in the assessment and teaching of EPAs. The information gained from our discussion will help to inform the medical community about how patient involvement may be implemented in CBD, so that the teaching and assessment of residents' skills and competences are strengthened.

Any comments that you make today will be kept confidential. Information that identifies you will not be included in any portion of the study. Only I, Holly, and my supervisor (Dr. Katherine Moreau) will know your identity and have access to this recorded interview, and its data.

You are free to leave at any time, and please feel free to only answer the questions that you are comfortable answering. Before we begin, I would like to remind you that there are no right or wrong answers to the questions that I will be asking.

Do you have any questions for me before we begin?

1. How were you involved in creating EPAs?
   Probes:
   a) What was your Role?

2. How were patients discussed in the **teaching** of milestones and EPAs, during their creation?
   Probes:
   a) Were there specific milestones that patients were identified as being adept to **teach**?

3. In your opinion, how do you think patients could or should have been discussed as **teachers** of milestones and/or EPAs, during their creation?
   Probes:
   a) What *competencies* and/or *milestones* do you think patients could teach? (Provide a few examples, if possible). Why?
   b) *How* do you think patients should teach them?

4. How were patients discussed in the **assessment** of milestones and EPAs, during their creation?
   Probes:
   a) Were there specific milestones that patients were identified as being adept to **assess**?

5. In your opinion, how do you think patients could/or should have been discussed as **assessors** of milestones and/or EPAs, during their creation?
   Probes:
   a) What *competencies* and/or *milestones* do you think patients could/should assess? (Provide a few examples, if possible). Why?
   b) *How* do you think patients should assess them?

6. In your opinion, what are the challenges of involving patients in the teaching and assessment of EPAs and/or milestones?
   Probes:
   a) What barriers do you face, as an educator, to involving patients?

7. From your perspective, what are benefits to involving patients in the teaching and assessment of EPAs and milestones?

8. Is there anything you would like to add about patient involvement in the teaching and assessment of EPAs?

Thank you very much for taking the time to participate in this interview with me. I have enjoyed learning about patient involvement in the design of EPAs, from you.

Appendix F: Consent Form (Part 2)

uOttawa

Université d’Ottawa
Faculté d’éducation

University of Ottawa
Faculty of Education

Patient Involvement in Competency-Based Medical Education

Research Team:	Holly Adam PhD (candidate) Faculty of Education University of Ottawa Vanier Hall 5002 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5	Katherine Moreau, PhD (Supervisor) Faculty of Education University of Ottawa Vanier Hall 5002 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808 kmoreau@uottawa.ca

Invitation to Participate: I am invited to participate in an interview for the above-mentioned Doctoral Thesis study conducted by Holly Adam PhD (Education) candidate from the University of Ottawa under the supervision of Professor Katherine Moreau. The study has received ethics approval from the Research Ethics Board at the University of Ottawa.

Purpose of the Study: The purpose of the study is to explore the perspectives of those who are/have been involved in the creation of specialty-specific EPA documents about patient involvement (or lack thereof) in them. The findings from this study will help to a) inform the ways in which patients may be incorporated into the teaching and assessment of EPAs, to strengthen the teaching and assessment of residents’ competencies and skills.; b) determine strengths and limitations of patients' involvement in medical education; and c) identify areas of CBD where patient involvement can be improved.

The interview will be a semi-structured conversation-style session. I will be asked a few open-ended questions about my perceptions, opinions, and insights about patients' involvement in the teaching and assessment of EPAs. The interview will take place via Zoom or Microsoft Teams at a time that is most convenient to me. The researcher will ask that I select a location for the interview that is private and convenient for me. Holly Adam will conduct the interview with me from a private office. The interview will take approximately **45 minutes** to complete. Holly Adam will ask, before the start of my interview, whether I consent to having my interview audio recorded and transcribed, by Holly Adam or a professional transcriptionist for analysis.

Risks: There is little risk associated with my involvement in this study. However, because questions will ask for my personal opinions, perceptions or experiences of involving patients in EPAs, I may feel uncomfortable sharing some of my personal insights on the topic. Thus, I do not have to respond to any question that makes me feel uncomfortable, and I may refuse to participate in the study at any time. My responses, recordings and transcripts will only be shared with the researchers of this study and will remain confidential.

Benefits: I may or may not benefit directly from this study. However, I may contribute to improving the future development, teaching, and assessment of EPAs in medical education.

Confidentiality and Anonymity: The information that I share in the interview will remain strictly confidential. The information I provide in the interview will only be used to explore the extent of patient involvement in the teaching and assessment of residents who are learning under a CBD framework. Because the interview will be conducted by Zoom or Microsoft Teams with Holly Adam, my anonymity and confidentiality cannot be fully protected, should I choose a location for the interview that is not private.

Tel/Tél : 613-562-5804

Fax/Téléc :613-562-5144

145, Jean-Jacques Lussier

Ottawa ON K1N 6N5 Canada

www.education.uOttawa.ca

Only Holly Adam and her supervisor (Dr. Katherine Moreau) will have access to my interview audio recording. I will not be asked to state my name during the interview. Any information that could potentially reveal my identity (e.g., name, specific position in the organization, years of experience) will be erased from the recording and transcript so that I cannot be identified in published reports or presentations.

The audio recording of the interview will be downloaded and erased from the audio-recorder immediately after the interview. All hard copy data (i.e. transcripts, consent forms, researchers' notes) will be stored in a locked cabinet at Holly Adam's home office. All audio recordings and other electronic data (i.e. consent forms) will be stored on a password-protected computer in the same office. Only the members of the above-mentioned research team will have access to the data. Data will be conserved for five years after the publication of research findings. After this time, data will be shredded and appropriately discarded.

Voluntary Participation: My participation in the study is **voluntary**. I can withdraw from the study at any time and/or refuse to answer any questions without any negative consequences. If I choose to withdraw, all of my contributions up to the time of withdrawal will be deleted and excluded from the study.

Acceptance: I ________________________________, agree to participate in the above-mentioned research study conducted by Holly Adam PhD (Education) candidate from the Faculty of Education, University of Ottawa under the supervision of Professor Katherine Moreau.

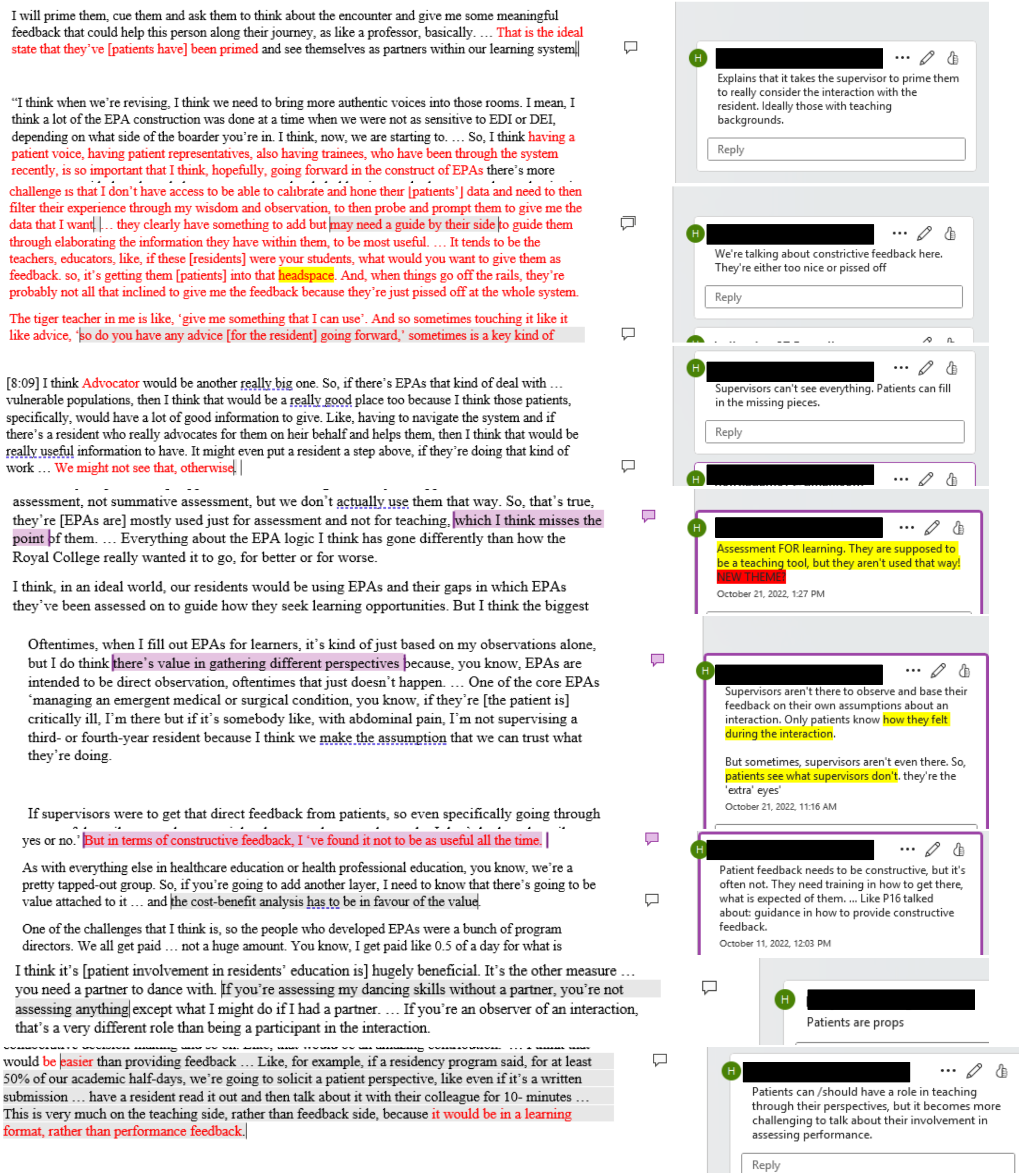
By providing my email, I am providing consent to Holly Adam to send me a summary of findings from my interview, which I will review and provide feedback on: ________________________________.

If I have any questions about the study, I may contact Holly Adam or Katherine Moreau at:

Holly Adam PhD (candidate) Faculty of Education University of Ottawa Vanier Hall 5002 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808)	Katherine Moreau, PhD (Supervisor) Faculty of Education University of Ottawa Vanier Hall 5083 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5 (613) 562-5800 (ext. 2808) kmoreau@uottawa.ca

If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity via email (ethics@uottawa.ca) or telephone (613-562-5387). It is recommended that I save a copy of this consent form for my record.

Appendix G: Examples of Analytic Memos from Participant Interviews



I will prime them, cue them and ask them to think about the encounter and give me some meaningful feedback that could help this person along their journey, as like a professor, basically. … That is the ideal state that they've [patients have] been primed and see themselves as partners within our learning system.

H [redacted]

Explains that it takes the supervisor to prime them to really consider the interaction with the resident. Ideally those with teaching backgrounds.

Reply

"I think when we're revising, I think we need to bring more authentic voices into those rooms. I mean, I think a lot of the EPA construction was done at a time when we were not as sensitive to EDI or DEI, depending on what side of the boarder you're in. I think, now, we are starting to. … So, I think having a patient voice, having patient representatives, also having trainees, who have been through the system recently, is so important that I think, hopefully, going forward in the construct of EPAs there's more

challenge is that I don't have access to be able to calibrate and hone their [patients'] data and need to then filter their experience through my wisdom and observation, to then probe and prompt them to give me the data that I want. … they clearly have something to add but may need a guide by their side to guide them through elaborating the information they have within them, to be most useful. … It tends to be the teachers, educators, like, if these [residents] were your students, what would you want to give them as feedback. so, it's getting them [patients] into that headspace. And, when things go off the rails, they're probably not all that inclined to give me the feedback because they're just pissed off at the whole system.

H [redacted]

We're talking about constrictive feedback here. They're either too nice or pissed off

Reply

The tiger teacher in me is like, 'give me something that I can use'. And so sometimes touching it like it like advice, 'so do you have any advice [for the resident] going forward,' sometimes is a key kind of

[8:09] I think Advocator would be another really big one. So, if there's EPAs that kind of deal with … vulnerable populations, then I think that would be a really good place too because I think those patients, specifically, would have a lot of good information to give. Like, having to navigate the system and if there's a resident who really advocates for them on heir behalf and helps them, then I think that would be really useful information to have. It might even put a resident a step above, if they're doing that kind of work … We might not see that, otherwise.

H [redacted]

Supervisors can't see everything. Patients can fill in the missing pieces.

Reply

H [redacted]

assessment, not summative assessment, but we don't actually use them that way. So, that's true, they're [EPAs are] mostly used just for assessment and not for teaching, which I think misses the point of them. … Everything about the EPA logic I think has gone differently than how the Royal College really wanted it to go, for better or for worse.

I think, in an ideal world, our residents would be using EPAs and their gaps in which EPAs they've been assessed on to guide how they seek learning opportunities. But I think the biggest

H [redacted]

Assessment FOR learning. They are supposed to be a teaching tool, but they aren't used that way! NEW THEME?

October 21, 2022, 1:27 PM

Oftentimes, when I fill out EPAs for learners, it's kind of just based on my observations alone, but I do think there's value in gathering different perspectives because, you know, EPAs are intended to be direct observation, oftentimes that just doesn't happen. … One of the core EPAs 'managing an emergent medical or surgical condition, you know, if they're [the patient is] critically ill, I'm there but if it's somebody like, with abdominal pain, I'm not supervising a third- or fourth-year resident because I think we make the assumption that we can trust what they're doing.

H [redacted]

Supervisors aren't there to observe and base their feedback on their own assumptions about an interaction. Only patients know how they felt during the interaction.

But sometimes, supervisors aren't even there. So, patients see what supervisors don't. they're the 'extra' eyes'

October 21, 2022, 11:16 AM

If supervisors were to get that direct feedback from patients, so even specifically going through

yes or no.' But in terms of constructive feedback, I 've found it not to be as useful all the time.

As with everything else in healthcare education or health professional education, you know, we're a pretty tapped-out group. So, if you're going to add another layer, I need to know that there's going to be value attached to it … and the cost-benefit analysis has to be in favour of the value.

One of the challenges that I think is, so the people who developed EPAs were a bunch of program directors. We all get paid … not a huge amount. You know, I get paid like 0.5 of a day for what is

H [redacted]

Patient feedback needs to be constructive, but it's often not. They need training in how to get there, what is expected of them. ... Like P16 talked about: guidance in how to provide constructive feedback.

October 11, 2022, 12:03 PM

I think it's [patient involvement in residents' education is] hugely beneficial. It's the other measure … you need a partner to dance with. If you're assessing my dancing skills without a partner, you're not assessing anything except what I might do if I had a partner. … If you're an observer of an interaction, that's a very different role than being a participant in the interaction.

H [redacted]

Patients are props

would be easier than providing feedback … Like, for example, if a residency program said, for at least 50% of our academic half-days, we're going to solicit a patient perspective, like even if it's a written submission … have a resident read it out and then talk about it with their colleague for 10- minutes … This is very much on the teaching side, rather than feedback side, because it would be in a learning format, rather than performance feedback.

H [redacted]

Patients can /should have a role in teaching through their perspectives, but it becomes more challenging to talk about their involvement in assessing performance.

Reply

Appendix H: Supplementary Quotes for Part 2 Interviews

RQ2: (How did those involved with EPAs, from selected specialties, envision patients being involved (or not involved) in the teaching and assessment of EPAs, as they created EPA documents?)

Theme	Supplementary Quotes
Patients as providers of feedback	*There was some talk about how we could get a patient's information to assess a resident, which we struggled with because there's certain barriers that we have with our patient population* (**P2**, Psychiatry). *We use a 360 evaluation for our residents, where they also have to solicit direct feedback from patients that is a part of that, including also multidisciplinary team members* (**P9**, Psychiatry). *I think there was some discussion, because we do have some aspects in [the EPAs] around communication skills, and relaying information, and patient comfort, and stuff like that. And so those were things I know that we at least discussed about, you know, how would we be able to obtain patient feedback on?* (**P12**, PM&R) *The way that we actualize feedback from the patient perspective is through our regular multisource feedback … The other conversation that was discussed … was whether or not to bring patients into our competence committees, So, that's where we actually sign off on the EPAs* (**P25**, ANESTH).
Patients as Subjects for Teaching	*[EPAs] also encompass very specific clinical scenarios. … They're all very specific to patient scenarios, like they're very patient focused* (**P3**, ANESTH). *There's almost no discussion of that. I'd probably say there was none in terms of patients teaching them [residents]* (**P7**, Gen. surg.) *Were patients discussed in teaching? Not to my recollection* (**P9**, Psychiatry). *When we're creating the EPAs and milestones, it's always with a focus on patient care.* (**P12**, PM&R).

RQ 3: (How do those involved with EPAs believe patients could (or should) be involved in the teaching and assessment of EPAs?)

Theme	Supplementary Quotes
Patients should provide feedback on non-technical milestones	*I think there are different elements, there's a more medical component of the debrief [and] then there's more of the patient's interaction components. We bring the actor in for that. … So, I could see the capacity for feedback, especially in the communicator Role.* (**P9**, Psychiatry) *[Patients] would probably be able to provide feedback to the supervising faculty, or another resident, or through the team if there were concerns or accolades in terms of how that interaction was with the resident. … I think that definitely they can [provide feedback] on the EPAs under communication* (**P10**, PM&R) *I'm thinking, specifically, about the Communicator Role because that's assessed across [EPAs]. Like, there are milestones for Communicators in multiple EPAs. So, certainly, who is going to know best how the communication was sent and received, like it's going to be the patient … only that patient really knows how effective a communicator the resident was. … The view if the patient, you now, I can't be that person. So, I think that' s where the value is; only they[patients] can really speak to their experience with that trainee* (**P17**, EMERG) *If there's a resident who really advocates for them, on their behalf and helps them, then [it] that would be really useful information to have. … [Faculty] might not see that, otherwise* (**P19**, Gen. Surg.) *Communication comes down to the involvement of the two people in the conversation. Me, as a faulty [and] an outsider, rating my resident, who's interacting with the family member, my perspective isn't what's really the most important; it's the perspective of the family, or the patient, or whoever they're interacting with. So maybe in some of those, the patient's feedback is much more valuable than mine.* (**P23**, EMERG)
Patients should contribute to the formative assessment of EPAs	*It may be at the end of that rotation that we [faculty] can somehow go back to that patient and say, 'look, you've been working with doctor so and so for the last few weeks. What are your impressions about them with regards to how they managed your care, etc., etc? And do it that way, in a targeted way. I think that would be more useful than a general survey*. (**P10**, PM&R)

	[Patient feedback] would be very very very important and would send a message to everybody that, like, this is a piece of data now that we consider. Like, it's maybe not the whole thing, but get it in your head that if patients think that you're a terrible advocate or that you communicate badly, then we're going to have some stuff to talk about. We need to figure that out. It's like an endpoint that you need to move to (**P13**, EMERG) *How do you filter the signals form the noise? Like, let's say one of my trainees says, 'No sir, I'm not going to prescribe you anymore narcotic medication.' Like, of course they're going to leave terrible feedback about the trainee, right!' So, how do you make sure it's fair and equitable? How do you find a way to gather that data that might be helpful? Like, 'wow, that communication was really bad,' not because they didn't prescribe narcotics, but because they seemed really aloof, they used lots of jargon* (**P17**, EMERG) *If you ask 10 patients [for feedback], you'll probably get 10 different answers. So if you're talking about teaching and assessing against a standard, then how do you figure out where the real signal lies?* (**P18**, EMERG) *While I think the subjective experiences of patients are important to understand, I think there's challenges in using information that may have come from a negative encounter to evaluate the residents, when maybe there's a multitude of circumstances that have led to that. Like, it's not actually the resident's fault, if you will, that something went poorly. So, I think knowing how to gather enough context to have that be seen in an appropriate light* (**P24**, GIM)
Patients could teach non-technical aspects of EPAs through storytelling	*If I could ask for one thing from my residents, is that they gain a sense of empathy for what the patients go through. And, to me, that is the best piece of teaching or information that a resident could gain. So, I wouldn't put any great expectations or pressure on a patient than to provide anything other than their personal experience of a case, or a treatment, or an interaction* (**P3**, ANESTH). *I can think of is where they actually have patients on some of the conference sessions, where they get up and give their lived experience of their disease. That, I think, is really helpful and probably something we don't see as often.* (**P4**, OBGYN) *How a patient perceives a trainee at delivery, is probably pretty important. I think back to when I as in medical school, the individuals who taught students how to do things like a pelvic exam were*

	patients, and were patients who kind of said, 'this is how you feel for the cervix, this is how you feel for the ovaries (**P17**, EMERG). *In most residency programs there's a formal academic curriculum where residents come together once a week and they get taught lectures and all sorts of things and do workshops and simulations and so on. So, bring patients into those forums* (**P18**, EMERG).

RQ 4: (What do those involved with EPAs perceive as barriers to patient involvement in the teaching and assessment of EPAs?)

Theme	Supplementary Quotes
Finding the "Right" Patient	*It's hard to get anything valuable from someone who's just yelling at you because you're not giving them a medication that they want. So, if a doctor says, no, I'm not giving you this, then they're not getting good feedback* (**P2**, Psychiatry). *Some of my patients never want to see me again because I've only ever been there for the bad stuff, so that automatically colors how they feel about you, good and bad* (**P4**, OBGYN). *You have to be a bit careful because some of the patients that we enlist as patient advocates have agendas. They tend to be a bit angry and not useful. But other people tend to be very astute and provide very useful information. So, you have to select the right kind of people* (**P8**, EMERG). *Not every patient can provide feedback for various reasons, like sometimes there are language barriers, sometimes they're cognitively impaired, and whatnot ... So, who's going to do it?* (**P10**, PM&R). *We sometimes have side evaluation tools, where we get patients to provide feedback for residents, and, obviously, that resident is going to go to that patient that they had a really good experience with. Of course, that patient is going to give them glowing remarks. So, that's one of the barriers or challenges* (**P14**, GIM). *Identifying the patients is often hard … asking them to give feedback on their first visit is challenging, especially in a cancer clinic-setting, where getting diagnosed or getting treatment decisions made, they*

	don't feel in the right space to give feedback. so, more of a follow-up patient's feedback, where you've established rapport with a patient, that's more important (**P15**, Rad. Onc.)
Lack of Time	*I'm mindful that residents are already finding CBD challenging. Like, it's a whole new level of stress… and now we've just added a whole other level of evaluation on top of it … So, I could see how it [patient feedback] being done in little doses would be nice, [but] I certainly wouldn't want to make it another commitment* (**P9**, Psychiatry). *I just think that what we practice from an educational perspective in medical school is just totally erased when we get to residency because there's this hidden curriculum of how you do things, really, never mind how you learned things, that really shirks it away and moves it way from being right in front of you. … We're going to have to expand services so that patients feel more surrounded and more supported* (**P13**, EMERG). *Filling out those forms takes time, in addition to all the patient administrative activities that the staff have, or the family members of patients or the patients may have. So, filling them out in a timely manner and saying [the resident] has achieved those in a timely manner, … there's potential for prolonging these residencies* (**P15**, Rad. Onc.). *I really believe that this is important, so I've tried, at least most shifts I'll do it at least once for a trainee, to involve a patient. but I can't do it for every patient* **(P16**, EMERG). *So, in a perfect world, where the supervisor could, or even if we could supervise 20% of interactions and then be able to spend an extra 5 minutes with a patient and their family and say, 'hey, I'd love your perspective on how this resident did; it's going to influence their assessment and assessment for today, you know, in a perfect world, I think that would be great. But the current paradigm, where the emergency departments are all like under water, it's just not real-life* **(P17**, EMERG). *Nationally, we should be looking at solutions for the overwhelming amount of EPAs … If [a patient feedback requirement] were to be put into EPAs, maybe be very selective into what EPAs that it goes into because it's going to make those EPAs just a little bit more complicated for the resident to get* (**P19**, Gen. Surg). *The big challenge I just foresee it as time and logistics … We're talking about having multiple times to go meet with patients to discuss with them about the report card, and then take all that*

	feedback back and review it, synthesize it. it's again, a bit more challenging (**P25**, ANESTH).
Risk of Breaking Patient Anonymity	*The feedback that we obtain, we played with different formats, but the one that works best for us [and] protects anonymity from a patient perspective, we actually have staff-mediated feedback. So, the site coordinator for the EPA that's involved … would get a form generated through our platform, and they would seek feedback from different stakeholders, of which patients would be included in those stakeholders. Patients wouldn't be identified, obviously* (**P3** ANESTH). *There has to be some mechanism, maybe after the patient is discharged home or after they've gone home for a little while, then it's [feedback] collected. … I think it's important to get more than one person's feedback and aggregate the data, so it's deidentified* (**P5**, OBGYN). *I don't know if maybe the staff person observing the EPA solicits some feedback, confidentially from the patient … I don't know. You'd have to have something in the moment I would think, where you could hand them a tablet, where there was something where thy could just tick, tick, tick* (**P9**, Psychiatry). *I think, maybe if I'm asking it, they [patients] may not be honest too because they know I'm assessing the trainee … I don't know how much of that is them being on the side of the trainee and wanting to ally with them* (**P16**, EMERG). *I think a lot of the time, a patient may not feel comfortable giving feedback in the moment … but, if they could do it kind of anonymously on a form for that person, then that would be really cool too … It [patient feedback] should be available to the resident, but anonymous. Like, I wouldn't want them to know which patients said what* (**P19**, Gen. Surg.).
Technological Barriers	*I think if you're going to add a patient evaluation to an EPA, it has to come away from Elantra and somehow be connected back to Elantra, like fed back to Elantra. Just by using Elantra and seeing what happens now with the faculty and the trainee, maybe there's a way to involve the patient without having the same procedure that we have now to collect EPAs* (**P6**, OBGYN). *Our system, we'd have to do a bit of tweaking because, right now, when the EPA assessments come in, you can see who completed them … Our system allows us to add an external assessor, but not all systems are like that … Like, it might have to become a little more manual, like, you could use some sort of survey tool, and then it*

	would be on the administrative team to pull that data and make sure that's available for the competency committee (**P19**, Gen. Surg.) *In many university centres, the EPAs can only be sent to those who are in the faculty orbit....* (**P21**, GIM) *I think it depends on the system that you have. So, if I thought about our system, the software platform that we use … the easiest way that it would get entered would be the resident setting it up on their phone and saying, 'here, fill this out.'* [laughs] (**P22**, OBGYN)