Residents' transformational changes through self-regulated, experiential learning for professionalism

L'apprentissage autorégulé et expérientiel des comportements professionnels et ses effets transformationnels chez les résidents

Janet M de Groot,¹ Aliya Kassam,² Dana Swystun,³ Maureen Topps^{4,5}

¹Departments of Psychiatry, Oncology, and Community Health Sciences, Cumming School of Medicine, University of Calgary, Alberta, Canada; ²Department of Community Health Sciences, Cumming School of Medicine, University of Calgary, Alberta, Canada; ³Radius Child and Youth Services, Ontario, Canada; ⁴Department of Family Medicine, Cumming School of Medicine, University of Calgary, Alberta, Canada; ⁵Medical Council of Canada, Ontario, Canada

Correspondence to: Janet M. de Groot, Department of Psychiatry, Foothills Medical Centre, 1403 – 29 Street NW, Calgary, AB, T5N 1N9; Telephone: 403-944-4932; email: idegroot@ucalgary.ca; Twitter: @JanetdeGroot1

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Abstract

Purpose: Postgraduate trainees ('residents") are required to convey professional behaviours as they navigate complex clinical environments. However, little is known about experiential learning for professionalism. Thus, we asked residents about professionalism challenges within the clinical learning environment: 1) how challenges were identified, 2) what supported successfully addressing challenges and 3) the impact of addressing challenges to further inform resident education.

Method: From 2015-2016, twenty-five residents across specialties and multiple university affiliated teaching hospitals participated in appreciative inquiry informed audio-taped semi-structured interviews. Transcripts were categorized deductively for the 2015 CanMEDS Professional Role element addressed (*commitment to patients, society, the profession, and physician health*). A pragmatic research paradigm focussed descriptive data analysis on actions and outcomes.

Results: Residents actively identify opportunities for experiential learning of professionalism within the clinical workplace—addressing conflicting priorities with interprofessional clinicians to ensure excellent patient care, providing informal feedback regarding peers' and other healthcare clinicians' professionalism lapses and by gaining self-awareness and maintaining wellness. There were no descriptions of commitment to society. Values, relationships, and reflection supported professional behaviours. Many described transformative personal and professional growth as an outcome of addressing professionalism challenges.

Conclusions: Residents self-regulated experiential learning for professionalism often results in transformational changes personally and professionally. Elucidation of how residents

Résumé

Objectif: Il est attendu des stagiaires postdoctoraux (résidents) d'adopter des comportements professionnels dans les environnements cliniques complexes dans lesquels ils évoluent. Cependant, on sait peu de choses sur l'apprentissage expérientiel des comportements professionnels. Nous avons donc interrogé les résidents sur les défis qu'ils rencontrent en lien avec le professionnalisme dans leur environnement d'apprentissage clinique: 1) quels sont les problèmes qu'ils considèrent comme étant liés au professionnalisme, 2) qu'est-ce qui les a aidés à relever ces défis avec succès et 3) quels sont les effets de leur réaction à ces problématiques et quelles leçons peut-on tirer de ces résultats pour mieux adapter la formation des résidents.

Méthode: Entre 2015 et 2016, 25 résidents de diverses spécialités et hôpitaux universitaires ont participé à des entretiens semi-structurés qui ont été menés selon une méthode d'interrogation appréciative et qui ont été enregistrés sur bande audio. Les transcriptions ont été catégorisées de manière déductive par rapport au rôle du professionnel du référentiel CanMEDS 2015 (engagement envers les patients, la société, la profession et la santé des médecins). Fondée sur un paradigme de recherche pragmatique, l'analyse des données descriptives ciblait les actions et les résultats.

Résultats: Les résidents décèlent activement les occasions d'apprentissage expérientiel du professionnalisme dans le milieu de travail clinique et ils réagissent par exemple en abordant les priorités divergentes avec les cliniciens d'équipes interprofessionnelles de façon à assurer l'excellence des soins aux patients, en fournissant des commentaires informels à leurs pairs et à d'autres cliniciens sur les comportements non professionnels de ces derniers, en prenant conscience d'eux-mêmes et en privilégiant le bienêtre. Ils n'ont pas proposé de description de l'engagement envers la société. Les valeurs, les relations et la réflexion sont les facteurs qui ont soutenu l'adoption de comportements professionnels. Un grand nombre de répondants ont déclaré avoir vécu une croissance personnelle et professionnelle transformatrice grâce à l'action qu'ils ont prise pour résoudre un problème de professionnalisme.

successfully navigate power dynamics and conflict to provide excellent patient care and feedback for professional regulatory behaviour will support professionalism education. An interprofessional research lens will be valuable to explore how best to incorporate commitment to society within clinical environments.

Conclusions: L'apprentissage expérientiel autorégulé du professionnalisme par les résidents entraîne souvent des changements transformationnels pour eux sur les plans personnel et professionnel. Une compréhension approfondie de la gestion réussie des rapports de pouvoir et des conflits par les résidents leur permettant d'assurer la qualité des soins aux patients et de donner une rétroaction à leurs collègues sur la conformité de leur comportement professionnel contribuerait grandement à l'enseignement du professionnalisme. L'adoption d'une approche de recherche interprofessionnelle serait utile pour explorer la meilleure façon d'intégrer l'engagement envers la société dans l'environnement clinique.

Introduction

The clinical workplace is central to postgraduate residents' ("residents") education, where experiential learning results from doing,1-4 experiential learning in medicine includes the following assumptions: learning is influenced by its context with potential for application in other contexts; social interactions influence what is learned and learning is triggered by authentic practice-based experiences. In addition, self-regulated learning⁵ emphasises that interest and motivation is required to identify often brief clinical opportunities to act and gain practice expertise. Teunissen's experiential learning framework^{1,2} highlights that residents interpret tacit information acquired through actions and then develop meaning as they acquire personal knowledge. In this regard, Mezirow⁶ describes an intrinsic human need to make meaning from experience. Transformative learning occurs when new meaning is integrated with prior knowledge and experience.⁶ The resulting personal knowledge supports thinking, interaction and performing in subsequent situations. We are interested in residents' experiential learning for professionalism, and how they enact and refine multidimensional professionalism competencies within complex clinical environments.

The often-abstract nature⁷ of professionalism with varying definitions⁸ may limit residents' identification of and capacity to build professionalism competencies. To facilitate educators' and residents' shared understanding, the CanMEDS framework⁹ defines the "Professional Role"¹¹ and Accreditation Council for Graduate Medical Education (ACGME)¹⁰ describes "Professionalism."¹² The CanMEDS Professional Role¹¹ emphasizes intentional commitment to each the patient, society, profession, and physician health (self-awareness and well-being). The CanMEDS competency framework⁹ was developed to ensure physicians are responsive to society and is theoretically informed by 'the ideal physician' concept¹³ Further, the Physician Charter on Professionalism, accepted by over 100

organizations worldwide, emphasizes the principles of patient welfare, patient autonomy and social justice. 14,15

Two ethnographic studies explored how the CanMEDS roles informed residents' interactions with supervisors and informed experiential learning in the clinical workplace. 16,17 These studies acknowledged the contextual aspect of experiential learning - the clinical workplace - and studied whether social interactions with supervisors, described as informal learning, occurred in relation to CanMEDS roles. Informal learning occurs spontaneously within clinical learning environments, through interaction supervisors and interprofessional clinicians^{17,18} Among internal medicine residents in the Netherlands, all CanMEDS roles were rarely discussed explicitly. 16 Varpio and colleagues' Canadian study revealed minimal intra- or interprofessional informal learning of CanMEDS Professional role competencies by palliative care and pediatric residents within clinical environments.¹⁷

Although observational studies found limited evidence of explicit learning opportunities for the CanMEDS Professional role, intensive care fellows in the Netherlands reported that feedback improved professional behaviour, ¹⁹ indicating that interactions with supervisors support experiential learning. A formalized clinical workplace-based professionalism intervention found intraprofessional in-person feedback more effectively enhanced residents' respectfulness and accountability than standard staff feedback forms. ²⁰ Guided reflection, with educators on clinical and non-clinical situations is recommended as valuable to support the forms of thinking and knowing required for professionalism. ^{21,22}

As indicated above, organizational contexts,²³⁻³⁰ with intersections of patients, practitioners, cultures, belief systems and power relationships^{31,32} influence experiential learning for professionalism. These organizational factors which may tacitly influence learning are often referred to as the hidden curriculum.³³ Typically, the hidden curriculum's negative influences on professionalism are

cited, which may include fatigue, ^{23,24} harassment and intimidation. ^{25,26} Burnout, with its emotional exhaustion, depersonalization and a low sense of personal accomplishment, may develop in this context and further, adversely affect professional behaviour. ²⁷ However, excellent clinician-educator role models within clinical environments are widely thought to support learning professionalism. ²² Overall, experiential learning for professionalism is thought to be a complex adaptive challenge ³⁴ requiring navigation of the hidden curriculum and complex organizations with limited informal learning opportunities.

To address the limited literature on residents' experiential learning for professionalism, we investigated:

- 1) What do residents identify as professionalism challenges within the clinical workplace?
- How residents address professionalism challenges.
- 3) What was the impact of addressing professional challenges?

Method

We adopted a paradigm of pragmatism, which inquires into socially situated problems and action to address the problem. ^{35,36} With pragmatism, human experience is central to the research, and knowledge assertions result from the experience of taking action which result in outcomes. This qualitative descriptive study ^{37,38} took place across four University affiliated hospitals with sixty-four residency programs.

Recruitment

Following institutional ethics approval, we recruited a convenience sample of residents in surgical and nonsurgical residency programs. Differences among resident workplaces and speciality roles were intended to support diversity and complexity³⁹ in descriptions of experiential learning for professionalism during clinical post-graduate training. The Postgraduate Medical Education (PGME) Office requested program directors by email to invite their programs' residents to participate in research interviews about professionalism challenges. Recruitment consisted of program assistants sending emails to residents. We initially sought residents in the final years of training, but since many described incidents early in training, recruitment was broadened to all training years. A token of appreciation, a coffee gift card was offered to participating residents. We recruited for sufficient information power to address the research aim and to find high quality interview data. 40

Data Generation

We gathered demographic information. A graduate level research assistant (RA) conducted in-person audiorecorded interviews which averaged fifteen to twenty minutes, at numerous training sites from July 2015 to February 2016. Interviews were transcribed by an external transcription service.

We used an appreciative inquiry (AI) approach^{41,42} to design our interview guide. Exploration of AI informed stories of professionalism excellence was useful for medical students' professionalism education⁴³ and to elucidating physician narratives of humanistic behaviour⁴⁴ Interviews asked residents to identify and describe a professional challenge that they had successfully managed in the clinical learning environment. Follow-up AI-informed questions included: a) location and other people involved; b) what supported successful management of the challenge; c) was addressing the challenge meaningful; d) what resources might be useful to enhance resident professionalism.

An iterative process of data analysis prompted minor revisions of the interview guide and questions (Appendix A). After four interviews, we added a description of professionalism prior to the interview at interviewees' request. For our purposes, we referred to the CanMEDS 2015 professional role description and competencies and included responsibilities from the Physician Charter on Professionalism. 14,15 The definition we provided included commitment to professional development to maintain a physician's knowledge set and skills, to the clinical application of medical ethics and morals, to acting on humanistic values, including empathy, compassion and integrity in relation to both individuals and society; and to self-awareness and maintaining well-being/ health, to avoid burnout or other health limitations that impact practice.

Data analysis

We used an adapted framework analysis method,⁵ a deductive technique that structures data and facilitates comparison of large data sets within and across categories. After reading through the transcripts for familiarization of the data, NVivo 12 software was used to manage the transcribed interviews labelled numerically from 1 to 25 for anonymity. We first categorized resident-identified professional challenges into one of four 2015 CanMEDS

Professional Role elements of commitment to: a) patients, b) society, c) the profession and d) physician health. Second, we used qualitative content analysis to code the data, noting how residents addressed professional challenges and the meaning of successfully conveying professional behaviour. The authors and RA read through the first four transcripts and through discussion agreed on the first set of codes. The remaining transcripts were analyzed by two authors (JdG & AK). Throughout, we utilized constant comparison of analyses for coding and organizing data. The analysis was done deductively based on the interview questions, CanMEDS descriptions and the literature. Through consensus, we resolved differences and developed themes by merging codes, referring back to researcher notes on codes, impressions and reflexive memos.

Results

Twenty-five residents, (16 women, 9 men) participated in interviews. The highest proportion of residents were in internal medicine (6) and family medicine (5). Year of residency ranged from first to eighth. The most common age group was 25-29 years (12) and included some over 40 years (3). (See Table 1)

Table 1. Demographic characteristics of postgraduate residents

in a single institution study	
Characteristic	Number
Residency Year	
1	5
2	8
3	1
4	1
5+	9
Not provided	1
Gender	
Male	9
Female	16
Specialty	
Family Medicine	5
Internal Medicine & subspecialties	6
Surgery	3
Emergency Medicine	3
Psychiatry	2
Critical Care	1
Pediatrics	1
Pathology	1
Public Health	1
OB/GYN	1
Not provided	1
Age	
25-29	12
30 - 34	6
35 - 39	1
40	3
Not provided	3

Mapping professionalism challenges to the CanMEDS professional role

Resident narratives reflected commitment to patients, the profession and physician health, and not of commitment to society.

Commitment to patients: Several residents described navigating conflicts about wait times, bed availability, and defending investigations with excellent, ethical, patient care as the aim. The disagreements about patient care decisions typically occurred with health providers unfamiliar to them, while on call, and at night. At these times, residents were alone and carried greater responsibility than during the day. Some residents withstood being yelled at while coming to patient care decisions and providing supervision for medical students. It typically took patience, restraint, and time to reach shared patient care decisions with other health professionals. "So everybody wants to do what's best for the patient, but sometimes it's quite a long discussion on getting there" (Male, PGY5). One resident described feeling morally conflicted prior to developing agreed-upon comfort care strategies for gravely ill patients when families held different values than the healthcare team: "So the struggle to help them get to that point while maintaining, like, your values and why you want to care for a patient this way. And then also seeing where their values are" (Female, PGY5).

Commitment to the profession: Residents commonly overcame hesitancy to provide feedback for the professional-regulatory behaviour necessary for the profession. Most feedback about unprofessional behaviour was given informally, resident to resident, as a team of junior residents to a peer, and less commonly to interprofessional clinicians or preceptors. Observed professional lapses included disrespectful behaviour towards patients, families, and colleagues; inappropriate medical record charting and not fulfilling on-call or team responsibilities. One resident described receiving feedback about their own disrespectful team interactions. A communications course was valuable towards conflict-free workplace interactions.

Residents engaged in careful planning to nonjudgementally provide feedback to preserve their peers' self-esteem and to promote learning. A senior resident thought their mental model of a junior resident supported providing feedback: "I knew that she would be receptive to constructive, firm, criticism from me; because I think we had a good relationship" (Male, PGY5). Another senior

resident provided repeated and increasingly specific feedback to address a junior resident's ongoing unprofessional social media behaviour commenting on an identifiable supervisor. Lighthearted email feedback was associated with temporary change. Review of an educational resource, the Canadian Medical Protective Association website, 46 bolstered the senior resident's growing capacity to state clearly that the social media posts were unprofessional: "it's a tough line to cross...I'm not a confrontational person, so to actually talk to her in person was hard" (Female, PGY5).

Residents' awareness of the medical hierarchy contributed to concerns about providing feedback to preceptors who conveyed disrespectful behaviour or shirked on-call patient care responsibilities. One resident discovered that the correct feedback process was to advise a rotation lead about concerns and eventually the information was combined with other residents' concerns to provide feedback to the preceptor. On a weekend, a resident spontaneously developed a plan for a team intervention to ensure an on-call preceptor contributed to patient care. "We ended up having a multidisciplinary meeting and part of that I think was to convince him.... kind of like a switch went off in his head. Like oh, maybe she [patient] does need this procedure done this week-end, like now" (Female, PGY2). The resident was pleased that the intervention supported patient care: "it worked out ideally for this patient" (Female, PGY2).

Residents' commitment to physician health and well-being: Residents' commitment to physician health, both their own and that of preceptors, was powerfully evocative and relational. Residents described growing self-awareness about the importance of attending to personal burnout: "how to be self-aware and how to realize when you're burning out a bit or realize when you might need to step back for a little break" (Male, PGY4). Some learned to pause when they felt angry or frustrated with colleagues or patients. A senior resident identified that the culture of medicine is demanding, with few thanks being conveyed. Three residents also spoke of concern for staff physicians, being protective of their health and well-being. One example was as follows:

I was on-call... on a Friday night ... The staff ... was scheduled in from Friday till Monday. And I became aware that she was facing an unusual, I guess, minor stressor at home ... But it made me put an even higher priority on doing my part as part of the team to not disturb her unnecessarily, so that she could have a

minimal amount of rest to be functioning well (Male, PGY1).

Commitment to society: Although one resident referred to perceived societal expectations, none provided a central narrative about physicians' commitment to society.

Factors that support addressing professionalism challenges

We identified three factors that support residents' professionalism commitments: values, relationships, and reflection. These factors and outcome on personal and professional growth are explored in greater depth below

Values: Professional values, such as excellence, altruism, integrity, respect, and empathy often guided resident actions. Many cited a commitment to excellence in patient care. Some felt inspired to convey greater excellence through wanting to match colleagues' high standards or to fully address patients' needs. A resident altruistically prioritized best patient care over personal plans, to cover an extra night on call, when a colleague was ill and others were reluctant to provide coverage: "I will do the call shift ... an additional one outside of my like contract ... to cover the patients and you don't want someone who is going to be like begrudging and resentful to be there" (Male, PGY2).

Residents held to a sense of integrity to address a tension between cutting corners and doing the right thing. In one instance, a senior resident was challenged in maintaining their own perspective of a junior resident's problematic behaviours that staff physicians had observed, but not documented. This was difficult when a formal evaluation process "spiraled out of control" (Female, PGY4) due to the junior resident complaints about the feedback.

Respect frequently guided residents' actions. In one instance, peers were curious about a preceptor's health condition. A resident with knowledge of the health matter kept the information confidential out of respect for the preceptor's privacy. Residents also conveyed the importance of respecting and listening to team members, patients, and families, with the recognition that each has knowledge of a patients' best interests. "I think everyone brings something to the table. And so, everyone deserves respect and needs respect, so respect is one thing" (Male, PGY3-4). Some spoke of how empathy overrode frustration and supported understanding patients' and families' angry methods of advocacy. As a result, the residents were less likely to be confrontational and supported excellent patient care.

Relationships: Residents learned about professional behaviours both through reflecting on preceptor role models' behaviours and from preceptors who became mentors. Residents intentionally observed and listened to preceptor role models as examples of how to and how not to address challenging circumstances: "take what I like and emulate that in my future practice and I kind of make a mental checklist of things I will and will not do if I'm in that situation. (Male, PGY5)

Residents established mentoring relationships with preceptors that they worked with longitudinally and could discuss planning for management of professionally challenging situations. Mentorship supported a sense of inclusion in a residency program, which led to feeling valued and accountable for their service and patient care. One resident speculated that "residents will run into trouble, when you've been off-service for a while or you just had no continuity of care with your preceptors, so you're this faceless [person]" (Female, PGY5). One resident spoke poignantly of wanting an educational culture that conveys the centrality of relationships with empathic preceptors who pro-actively address residents' ethical issues and the emotional challenges of medical work: "Preceptors with at least some degree of empathy for their trainees to be able to check in with them, to be able to understand when a conversation needs to be had to like explore ethical things when they come up" (Female, PGY2). Another resident articulated the many qualities of an excellent professionalism mentor or role model as one who is practical, balances patient centred and systems perspectives, and has excellent communication and collaborative skills.

Interprofessional team members helped a resident process moral distress, ⁴⁶ as the latter felt constrained by a family's more aggressive goals of care for a patient nearing end of life than what the healthcare team believed was needed. Another resident valued maintaining close personal relationships to sustain happiness at work, despite the long hours.

Residents who overcame hesitation to address others' unprofessional behaviour often experienced explicit or implicit reassurance from the recipients, who either conveyed the feedback was appropriate or changed their behaviour. A resident valued a peer's explicit acknowledgement of needing to improve communication. "A few days later, when it was done, like he was kind of like oh yeah, I need to work on this... So just kind of validated" (Male, PGY3-4). A resident provided an example from

clerkship. She informed a peer that she intended to present for clinical duties on a stat holiday, despite many clerks choosing not to. She gained implicit validation when the peer who wavered about showing up, decided to be present on the stat holiday. "I think immediately in the moment I thought I'd addressed it appropriately and then I think the next day it was even more obvious. Because this girl then decided she would [show up]" (Female, PGY2).

Reflection: Residents frequently mentioned intentionally taking time to reflect when they were emotionally disrupted, despite feeling time pressured. A very brief pause could support one's self- and situational awareness, and a longer pause, contributed to calmer, productive discussions with respect to non-urgent matters and to provide feedback.

A resident experienced sadness and frustration when there was no debrief following a patient's unexpected suicide. Following peer reflection, and consulting a therapist, the resident felt sufficiently empowered to lead a discussion with their preceptor. Through discussion, the resident had a positive relational experience of shared sadness reflecting the limits of medicine to cure. "Kind of like an epiphany of oh, so we together share this emotion and we shared the burden and we now have understanding and I feel a hundred times better" (Female, PGY2).

Some residents recommended formal opportunities for reflection to process and develop greater understanding and strategies for complex professionalism challenges: "an interactive professionalism curriculum would be useful, using actual examples from your life" (Male, PGY1). Safety from judgement was highlighted as important to effective formalized reflection opportunities.

Personal and professional growth

During interviews, residents seemed primed to reflect on mistakes. In contrast, an invitation to reflect on successful navigation of a professionalism challenge was novel for many. After successfully addressing a professional challenge, residents often experienced personal and professional change and growth. A resident felt like a leader for the first time after speaking up about feeling accountable when a peer did not. A resident who gained enhanced interpersonal awareness by addressing constructive feedback experienced more enjoyment in interprofessional relationships. Another felt more like the senior resident one looked up to when a junior. One described experiencing a felt shift from being a student to functioning like a doctor with patient care responsibilities.

Another simply said, "the perception of myself was better as a doctor" (Male, PGY1). The changes many experienced in stretching their personal capacities was described by a resident as 'self-actualization' (Female, PGY3).

Several residents described becoming role models to medical students and junior residents. Their role modeling included 'fashioning' themselves after respected

preceptors, as well as consciously striving to convey excellence while addressing challenges in the workplace, with the knowledge that medical students observe their behaviour. One highlighted that with greater seniority comes greater expectations to be an excellent role model.

CanMEDS The Professional Role concepts. Commitments:	Quotes	Participant
	the senior medical resident usually gets into a discussion with the Emergency Room nurses usually about sending a patient upstairs who we don't think is safe to go upstairs yet, but they would like the patient moved upstairs to facilitate care for more patients I think in some ways it's easy for me to remain professional because they're not going to move them up until I say to move them up. But at the same time it's difficult to do that when you have somebody yelling at you and tough to make it not personal when they're doing that.	2
To patients by applying best patient care and ethical practices	So the struggle to help them [family] get to that point while maintaining like your values and why you want to care for a patient this way. And then also seeing where their values are.	6
	I was acting as a senior and it was a little bit out of my comfort zone because I'm not an internal medicine resident, but I think just having had a bit more experience than the other first-year residents who were just starting I would come in early every morning probably an hour before we started to just look over records and keep up-to-date with all the patients.	16
To the profession	I finally spoke to her in person and said you cannot put the patient information on Facebook.	4
	I was a chief resident made aware via a member of the nursing staff that a junior resident under my umbrella in my program had gone back and altered part of the medical record when they had made an error and I knew that she would be receptive to constructive, firm, criticism from me; because I think we had a good relationship.	8
	lot of my job I felt was really trying to convince people [consultants] to see a sick [patient], which you know was kind of frustrating for me because I guess when you think about all the reasons that you go into medicine and all the things that we agree to if I'm going into the profession, you justfor a sick [patient] you kind of expect that people would just automatically	11
To physician health & well-being	just having that break to eat. I mean sometimes you don't eat. I mean that's not good either because then you're tired and you're grumpy and its just a recipe for people making mistakes or people being short with others.	12
	I recognized that I had improved professionally when I had a lot less conflict and stopped getting in trouble I quess in residency.	15
	And I think that for me, like it's a key challenge to understand when my feelings are meaningful and I need to incorporate them and when my feelings are going to, I guess, challenge my professional conduct or get in the way of me acting professionally.	25

Discussion

Our study found that residents across specialties clearly identified addressing three elements of the CanMEDS Professional Role as part of experiential learning in the clinical workplace. We noted that residents did not describe commitment to society, although it was included in the professionalism description. Residents actively engaged in self-regulated⁵ experiential learning for professionalism. Pausing to reflect and process emotions, adhering to internalized values associated with professionalism and relationships with preceptors, peers and inter-professional clinicians supported residents' experiential learning for professional behaviours. As residents spoke of uncertainty and stretching themselves to manage difficult professionalism situations, several felt transformed.⁶ Residents derived meaning from discovering new ways of being, whether as a leader, or successfully engaging capacities not previously used, for difficult interpersonal interactions.

The centrality of residents' experiences of conflict with interprofessional clinicians in pursuit of providing excellent patient care is a novel finding in relation to professionalism. It differs from physicians' descriptions of commitment to patient care as going the extra mile for patients to convey professionalism. 43,44 Within multidisciplinary healthcare teams, conflict is inevitable. Intensivists and surgeons, particularly younger surgeons report frequent conflict about patient care in intensive care units. 47,48 Residents learned to manage emotions, while developing communication strategies to address conflict and held to values of integrity, respect, and excellence. In healthcare, conflict is often looked on negatively despite the potential it may offer for innovation.⁴⁹ An example of resident innovation with conflict was to address a difficult hierarchical situation by arranging an ad-hoc weekend team meeting regarding a patient's care to prompt a reluctant physician to also provide care for the patient on the weekend.

Also, unique to an Al professionalism study, almost half of the resident participants provided informal, formative feedback to enhance professionalism among peers, interprofessional clinicians and staff physicians. Residents most often provided feedback in the context of an ongoing working relationship with limited hierarchy, 50,51 motivated to support excellence in patient care and learning. Residents who provided feedback often experienced enhanced self-awareness, confidence, and wellbeing.

Maintaining self-awareness and wellness were also important elements of commitment to physician health for many residents. This was evident when residents described painful, nearly intolerable, or traumatic emotional experience following a patient suicide and when families' goals of care for a patient were discrepant with that of the healthcare team. Residents were often challenged to speak up about professionalism in relation to the medical hierarchy. With less power to influence outcomes than staff physicians, ⁵² residents may be at risk of moral distress in relation to ethical challenges. ⁵³ Validation of painful emotions by interprofessional team members or a preceptor supported the sense of a collective that together bears the emotional labour that may be present in clinical work.

Addressing emotions, drawing on professional values and pausing to reflect supported transformative personal and professional growth. Residents who engaged in reflection, processed emotions, and felt supported in relationships conveyed the human experience of being a physician. To enhance experiential learning, several residents were interested in formal opportunities to reflect on resident identified professionalism challenges. Reflection with

trusted preceptors could support conveying uncertainty and vulnerability⁵⁴⁻⁵⁶ in addressing new behaviours. As well, self-inquiry and reflection will support self-awareness of one's culture, social position and profession,⁵⁵ in relation to hierarchical aspects of professional challenges. As residents dialogue with faculty about self-awareness and choices to engage in new behaviours, there is potential for transformative learning. 6,56 Reflection may include identifying elements of the hidden curriculum, including systemic forces that exert adverse influences on excellent patient care.30,31 Reflective space also supports incorporating new experiences and contributes to new modes of being⁵⁶ such as newly engaging in feedback for professionalism. Potentially small group discussions could contribute to development of communities of practice^{54,57} for reflection on the very human, often emotional nature of healthcare practice, values and ethics, interactions between patients and doctors, as well as between numerous clinicians. Small group sessions support personal safety and comfort, and reflection on one's own perspectives and values, and recognition of privilege implicit in medicine. 55,58-61

How residents successfully navigate power dynamics and conflict to provide excellent patient care and feedback requires more exploration. A multi-site study of residents' experiential learning for professionalism could be helpful to determine the extent to which residents endorse addressing the four elements of the CanMEDS Professional Role in clinical environments. This information may be valuable for educators to further determine gaps that exist in experiential learning for professionalism. To further inform education for residents' commitment to society, integrating an interprofessional research lens may better incorporate social justice within clinical environments. 60,61 In this regard, the construct of professionalism is constantly evolving. Commitment to society could be underscored more through identifying experiential learning opportunities.

Limitations

Our reliance on resident recall of retrospective professionalism challenges included learning events several years earlier. This is consistent with literature finding little evidence of informal learning for the CanMEDS Professional role. Perhaps the focus on successfully addressing professionalism challenges biased residents to provide narratives of their most challenging professionalism experiences, which helpfully highlighted

personal growth. A prompt to consider day-to-day professionalism challenges in the past week or month may contribute to different professionalism descriptions. The pragmatism paradigm also did not elucidate whether residents from different racial or socio-economic groups experienced the medical hierarchy and clinical context differently. Al critiques suggest that in exploring what is going well, problems will be ignored. However, Al informed research may identify knowledge gaps, support meaning-making and contribute to practice change. In this regard, the lack of resident narratives about commitment to society may reflect that our study preceded recent events that call for greater incorporation of social justice and commitment to society into the CanMEDS Professional Role. 64,65

Conclusions and future directions

Our pragmatism paradigm, with AI informed data collection captured residents' self-regulated experiential learning to successfully address professionalism challenges. This study suggests residents' CanMEDS Professional Role actions fully engaged them as relational people with values, emotions, thoughts, and motivations. It is novel to document residents' experiences of conflict in the pursuit of excellence in patient care, as well as residents' informal professional regulatory behaviours with peers and preceptors.

Conflicts of Interest: None.

Funding: Peer reviewed funding from the 2014-2015 Office Health Medical Education and Scholarship Grants competition, Cumming School of Medicine, University of Calgary.

Acknowledgments: The authors wish to thank the reviewers of the manuscript who provided valuable, thoughtful critiques that greatly enhanced the clarity and potential contribution of the paper.

Previous Presentations: Canadian Conference on Medical Education, Halifax, Nova Scotia, Canada. April 29, 2018.

32nd Annual Sebastian K. Littmann Research Day, Department of Psychiatry, Calgary, AB, Canada. March 1, 2020.

Health and Medical Education Scholarship Symposium 2020. Cumming School of Medicine, University of Calgary, March 5, 2020.

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Appendix A

Exploring Resident Success in Professionalism Interview Guide

Our definition of Professionalism is as described as follows. Professionalism emphasizes commitment, to continual learning to maintain a physician's knowledge set and skills, to the clinical application of medical ethics and morals, to acting on humanistic values, including empathy, compassion and integrity in relation to both individuals and society; and to self-awareness and maintaining well-being/health, to avoid burnout or other health limitations that impact practice. Despite the challenges of the learning environment, trainees are required to convey professionalism through their attitudes and behaviors.

Begin recording

Frist, we are going to start with a specific professionalism challenge that you were successful with, and then look even broader to success across many professionalism challenges.

Specific Situation

1. Could you please describe a clinical situation where you were at your best, and successfully resolved a professionalism challenge? Please describe it in as much detail as possible, so that I as the listener can picture the situation.

Ensure the following is described:

- Setting (ER, phone call, in-patient, out-patient, etc.)
- All people present (patient, preceptors, residents, nurses, medical clerks, etc.)
- Resident's role (observer, chief, senior/junior, etc.)
- 2. How did you define or recognize when you successfully addressed this professionalism challenge?

Prompts:

- Response of others
- Changed behavior
- Impact on personal awareness
- 3. What elements or experiences may have contributed to meeting and resolving this professionalism challenge?

Prompts:

- Others roles, role modelling
- Resources (academically, broader life)
- Previous roles/jobs
- Expectations of your own or others
- 4. If you were to face this challenge again, can you imagine ways that could have made addressing the professionalism challenge even better?
- 5. Was this experience addressing a professionalism challenge meaningful to you? If so, please indicate how (internal pride, guidance in subsequent situations).

Professionalism in a Broader Context

Thank you very much. Now, the following questions are pertaining to professionalism and professionalism challenges in a broader context.

- 6. What constitutes or can enhance the successful management of professionalism challenges?
- 7. Can you think of what could help residents address the professionalism challenges they may face from a post-graduate medical education perspective? What could be provided to residents?
- 8. Do you have anything else to add regarding professionalism?

^{*}End Recording*