Medical students' experiences with goals of care discussions and their impact on professional identity formation

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CONTEXT Goals of care (GoC) discussions occur amongst patients, family members and clinicians in order to establish plans of care and are invaluable aspects of end-of-life care. In previous research, medical learners have reported insufficient training and emotional distress about end-of-life decision making, but most studies have focused on postgraduate trainees and have been quantitative or have evaluated specific educational interventions. None have qualitatively explored medical students' experiences with GoC discussions, their perceptions of associated hidden curricula, and the impacts of these on professional identity formation (PIF), the individualised developmental processes by which laypersons evolve to think, act and feel like, and ultimately become, medical professionals.

METHODS Using purposive sampling at one Canadian medical school, individual semi-structured interviews were conducted with 18 medical students to explore their experiences with GoC discussions during their core internal medicine clerkship. Interviews were audiorecorded, transcribed and anonymised. Concurrently with data collection, transcripts were analysed iteratively and inductively using interpretative phenomenological analysis, a qualitative research approach that allows the rich exploration of subjective experiences.

RESULTS Participants reported minimal support and supervision in conducting GoC discussions, which were experienced as ethically challenging, emotionally powerful encounters exemplifying tensions between formal and hidden curricula. Role modelling and institutional culture were key mechanisms through which hidden curricula were transmitted, subverting formal curricula in doing so and contributing to participants' emotional distress. Participants' coping responses were generally negative and included symptoms of burnout, the pursuit of standardisation, rationalisation, compartmentalisation and the adaptation of previously held, more idealised professional identities.

CONCLUSIONS GoC discussions in this study were often led by inexperienced medical students and impacted negatively on their PIF. Through complex emotional processes, they struggled to reconcile earlier concepts of physician identities with newly developing ones and often reluctantly adopted suboptimal professional behaviours and attitudes. Improved education about GoC discussions is necessary for patient care and may represent concrete and specific opportunities to influence students' PIF positively.

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INTRODUCTION

Goals of care (GoC) discussions, ideally, are person-centred conversations amongst patients, family members and clinicians about individual values and plans of care, including the use of life-sustaining treatments.[1–3] Associated with better patient and caregiver quality of life, as well as less aggressive, costly medical care,[4–7] they are low-cost, high-value aspects of end-of-life care.[2] As the provision of intensive technology-laden care, including cardiopulmonary resuscitation (CPR), is the default for hospitalised patients, the assessment and documentation of GoC are crucial and are considered as indicators of quality of care, especially for older patients.[8]

However, learners report insufficient training in end-of-life communication and decision making[9–13] and associated emotional distress.[14–18] Previous studies of trainees' experiences with end-of-life care have typically focused on residents or fellows and have generally comprised quantitative surveys seeking overviews,[11,19] described the development or evaluation of specific educational interventions,[20–27] or addressed the issue more broadly and included such topics as emotional relationships with dying patients, breaking bad news and symptom management.[28–35] With respect to these other aspects of end-of-life care, learners are significantly influenced by hidden curricula, the unintended sociocultural values and expectations internalised from implicit messages embedded in organisational structure and culture.[36–38] To our knowledge, no previous studies have examined medical students' experiences with GoC discussions, associated hidden curricula, and their impact on professional identity formation (PIF), the individualised developmental processes by which laypersons evolve to become professionals.[39–41]

Despite pre-clerkship formal curricular emphasis on empathy and compassion, these qualities deteriorate during clerkship,[42–44] although it remains unclear how this unfolds or how specifically to improve the situation.[45,46] Broadly, clerkship is a critical transitional period, and is highlighted in the medical education literature as an important period for the development of professionalism.[47,48] Although earlier conceptualisations of medical professionalism emphasised intrinsic characteristics (virtue-based professionalism) or observable actions (behaviour-based professionalism), PIF focuses on the socially grounded, ongoing evolution of identity into an integrated and internalised set of values, beliefs and aspirations about what it means to be a physician.[39,49] Within this framework, students embark upon complex developmental and socialisation processes during clerkship involving role modelling, experiential learning and knowledge acquisition; their identities are dynamic, adaptive, multiple, socially constructed and heavily influenced by hidden curricula.[41,50–52] In Canada, medical students are supervised by residents and staff physicians during clerkship but are also important health care providers; the internal medicine clerkship is particularly noted for requiring students to take significant responsibility for day-to-day patient care activities.[53] Students are thus expected to participate in and potentially lead GoC discussions and documentation.

In this study, we aimed to explore students' experiences with GoC discussions during the internal medicine clerkship as a window into PIF and ultimately to identify clinically relevant opportunities to impact upon students' humanism. More specifically, our research questions were: (i) How do students experience and feel about GoC discussions?; (ii) How do students perceive associated hidden curricula?, and (iii) How do students' experiences affect their sense of self and identity development?

METHODS

Ethics

The Hamilton Integrated Research Ethics Board approved this study (HiREB 14-618).

Conceptual orientation and methodology

Because we sought to explore inherently subjective experiences, we adopted a constructivist paradigm focused on how individuals construct knowledge and reality.[54] More specifically, we used interpretative phenomenological analysis, an approach underpinned by phenomenology, hermeneutics and idiography. Phenomenology focuses on the meanings individuals attach to their experiences and, at its core, formalises the human experience of listening to others' stories while reflecting on one's own perceptions.[55,56] Hermeneutics, meanwhile, is the theory of interpretation and originated in biblical interpretation.[55,57] Using lived experiences to learn about sociocultural contexts, it involves reflexive,

cyclical processes that consider the researcher and participant to be interrelated and mutually transformative.[55,58] Idiography, finally, is concerned with the particular and highlights the focus of interpretative phenomenological analysis on phenomena as understood from individuals' particular perspectives in particular contexts.[55,58,59]

Research team

Interpretative phenomenological analysis emphasises researchers' interpretive roles and incorporation of preconceptions. Our research team's backgrounds are thus relevant; the team includes a geriatrician and educator who was a clinical fellow at the time of the study (XMW), an internist with research expertise in serious illness communication (JJY) and a non-clinician qualitative researcher (MS).

Context

This study was conducted at one Canadian medical school. At the time of the study, formal curricula about end-of-life care were delivered within palliative care curricula in the pre-clerkship phase, and included a large group session with observation of an expert clinician role-playing a GoC discussion and five complementary small group, problem-based learning sessions on related topics such as breaking bad news. Students then rotated through clerkship without further formal GoC education, although they may have encountered the topic through informal curricula (the idiosyncratic, ad hoc learning that occurs outside classrooms).[38,60]

During the core internal medicine clerkship, students join teams of a staff physician, senior resident and three first-year residents. Overnight when on call, residents supervise students; staff physicians are available by telephone and typically review patients in person the following day. Students are integral team members with primary patient responsibilities that include the admitting of patients from emergency departments and the completion of GoC medical order sets. These standardised checkbox forms (Appendix S1) are intended to capture more fulsome GoC discussions and lead to natural opportunities for exposure to end-of-life communication. This is also the clerkship during which students have greatest exposure to seriously ill patients, for whom GoC discussions are most appropriate.

Sampling

We invited final- and penultimate-year medical students to participate by e-mail during the second week of each 6-week internal medicine clerkship. One investigator (XMW) interviewed all interested participants. Although she was an insider researcher as a clinical fellow in geriatrics at the same institution, XMW did not have direct participant relationships such as through the supervision or assessment of clerkship students; this minimised coercion risk and bias towards the reporting of positive experiences. Verbal and written consent procedures emphasised that participation was voluntary, confidential and irrelevant to academic standing. Participants were offered a Can$50 gift card. We continued to send recruitment e-mails until we felt data saturation had been achieved.

Data collection

We created an interview guide (Appendix S2) based upon literature review and piloting with four faculty members and students otherwise unconnected with the study. XMW used the guide flexibly to conduct digitally audiorecorded, individual, semi-structured interviews in hospital conference rooms. Interviews began with open questions about the participant's internal medicine experiences and understanding of GoC discussions. Given the inconsistent terminology in the literature, participants were provided with our conceptualisation of GoC discussions as follows: 'Discussions between health care providers, patients and/or substitute decision makers in institutionalised settings (e.g. hospitals) to obtain informed consent for plans of care, including resuscitation and code status.' Participants were then invited to share stories of memorable GoC discussions.

Recordings were uploaded to a secure hospital network, anonymised and transcribed professionally. We reviewed transcripts and recordings to ensure accuracy and then imported them to NVivo Version 10 (QSR International Pty Ltd, Doncaster, Vic, Australia). Basic (fill-in-the-blank) demographic data were collected at the end of each interview.

Data analysis

Transcripts were reviewed by at least two investigators (XMW and one of JJY and MS). We independently analysed and coded four transcripts

in triplicate (XMW, JJY, MS) and another four in duplicate (XMW and one of JJY and MS) to encourage awareness of individual perspectives, challenge our interpretations, and enable the discussion of disagreements. XMW analysed the remaining transcripts independently, continuously returning the analysis to the team for discussion and thematic refinement until consensus was reached.

We analysed data concurrently with data collection inductively and iteratively, moving from the particular to the shared and from a more descriptive to an interpretive codebook.[55,58,61] This included analyses of participants' beliefs and understanding, including descriptions of their experiences, the ways they described them, and our interpretations of how they understood those experiences.[62] Emergent themes were clustered within each interview and then across participants to create superordinate themes, and finally integrated into a more abstract narrative.[58,63]

RESULTS

Table 1 summarises participant demographic information. We judged data saturation to have occurred after 18 interviews ranging between 30 and 85 minutes in length (participation rate: 25%). To aid the assessment of transferability, we present a contextual overview before our main analysis.

Contextual overview

Participants unanimously described the ward as clinically demanding, with significant time pressures. Nonetheless, they described rich learning experiences and considered themselves as important health care providers:

> Managing patients pretty independently [... We're] the most responsible. (Participant [P] 9)

GoC discussions were considered clinically important and integral to consultations conducted in the emergency department; indeed, participants reported expectations from their supervisors and hospital administrators to document code status immediately upon hospital admission:

> What if something bad happens tonight, and no-one talked about it, and the default is full code, and they're 98 and were ready to pass on? (P8)

Participants reported that they frequently conducted GoC discussions independently, typically after observing residents once or twice and with minimal observation or feedback (Table 2).

Conceptual themes

The interviews yielded rich insights into students' experiences, with three intertwined superordinate themes identified as key components of how participants made sense of their experiences (Fig. 1). GoC discussions were often experienced as: (i) ethical dilemmas, that exemplified; (ii) hidden versus formal curricular tensions, and contributed to, (iii) emotional distress.

Table 1 Participant characteristics

Characteristic	Participants (n = 18)
Age, years, mean ± standard deviation	24.7 ± 3.1
Self-identified gender	
Male, *n* (%)	8 (44%)
Female, *n* (%)	10 (56%)

Table 2 Self-reported frequencies of goals of care (GoC) discussions conducted and observed by participants (n = 18)

	Frequency	Participants, *n* (%)
Number of GoC discussions conducted independently	Never	0
	< 5	1 (6%)
	5–10	8 (44%)
	> 10	9 (50%)
Observation of residents and staff physicians conducting GoC discussions	Never	1 (6%)
	1–3 times	14 (78%)
	> 3 times	3 (17%)
Being observed by residents and staff physicians when conducting GoC discussions	Never	13 (72%)
	1–2 times	5 (28%)
	> 2 times	0
Feedback from residents and staff physicians about GoC discussions	Never	16 (89%)
	1–3 times	2 (11%)
	> 3 times	0

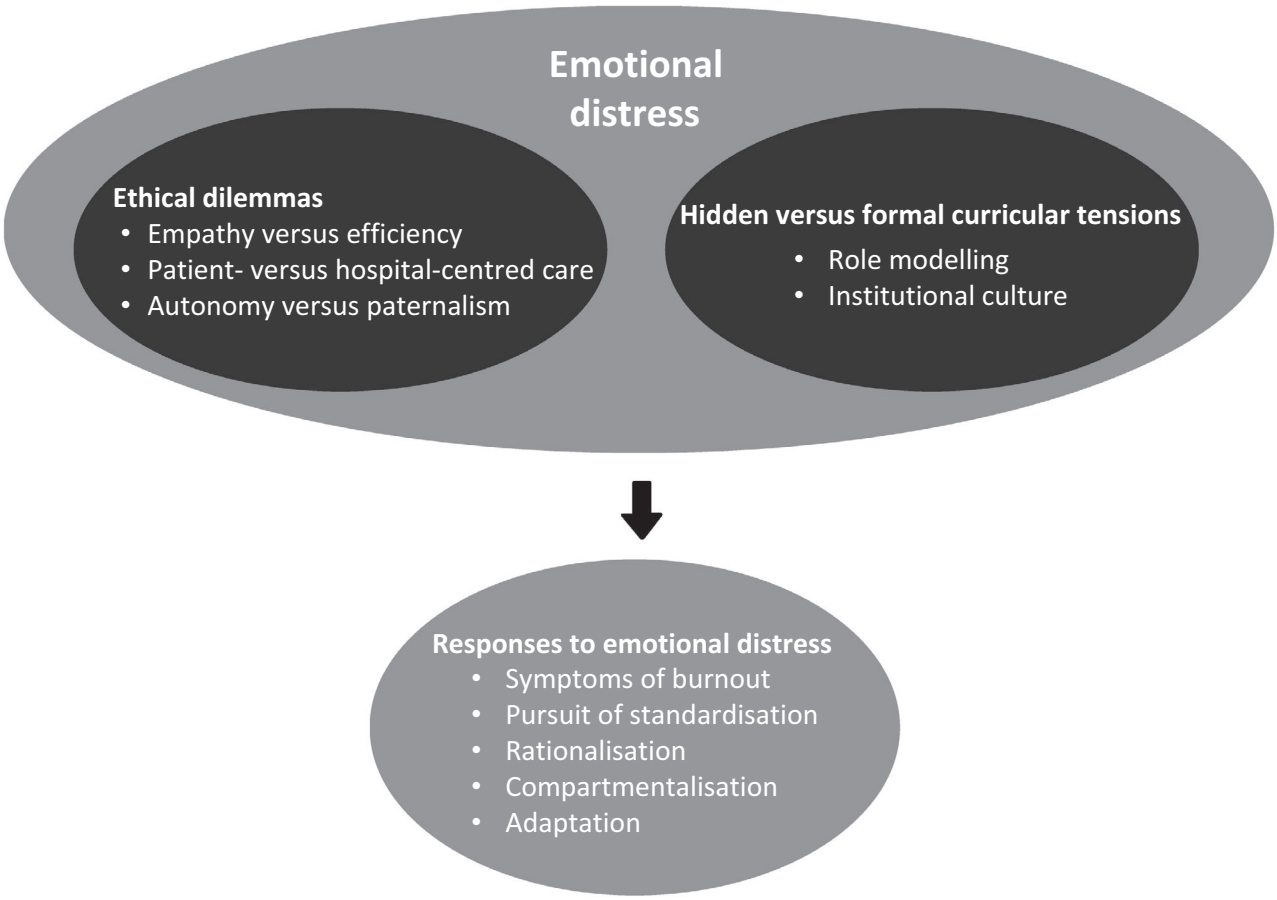

Figure 1 Conceptual themes in student experiences of goals of care discussions

Ethical dilemmas

Participants often framed variably unprofessional experiences with GoC discussions as ethical dilemmas between empathy and efficiency, patient- and hospital-centred care, and autonomy and paternalism, this superordinate theme's three main sub-themes. Participants associated efficiency, hospital-centred care and paternalism with the real-world and professional identities they saw themselves reluctantly adopting. Highlighting her self-awareness and sense of loss in recognising that she, too, will stop '[talking] to people', one participant said:

> When you don't have time, it's not my role [. . .] to talk to you [. . .] I like having a little more time for now [. . .] so I can still talk to people [. . .] The more senior people usually don't, and I'll probably be like that too. (P12)

Empathy versus efficiency

For participants, empathy, although desirable, was inefficient and impractical. With a sense of helplessness, regret and yearning, they recognised the rapid increase in responsibility throughout medical training and considered decline in empathy inevitable:

> There was really no time to [. . .] discuss their actual GoC and values [. . .] You weren't treating people the way you'd want your family treated [. . .] There wasn't really anything you could do. (P5)

Patient- versus hospital-centred care

Many participants felt the pressure to document GoC using standardised orders encouraged hospital-centred medico-legal processes of form completion rather than patient-centred discussions:

> The focus becomes our end goals, rather than their end goals. (P11)

Emphasis on documentation threatened participants' conceptions of themselves as patient advocates, despite their earlier assumptions that

advocacy would be an area of strength as a result of their relatively fewer clinical responsibilities:

> [I'd thought I could] stick up for [patients . . .] the good part of having a med student look after you was [supposed to be] we'd have more time [. . .] I still don't have time to really get into [GoC] properly [. . .] The focus is just on getting the [form] filled out. (P16)

Practically, these checkbox-style GoC forms led to participants' conceptualisation of GoC as a menu from which patients chose:

> You're there with a check mark. [. . .] Active treatment including critical care. Active treatment excluding critical care. [. . .] It was a dinner menu. (P8)

Autonomy versus paternalism

Many participants experienced anxiety when patient wishes were discordant with medical recommendations, and, more fundamentally, felt uncertain about whether physicians should present options neutrally, offer recommendations or decide GoC unilaterally:

> If [. . .] we can influence them by how we present things, then surely we should just make the decision for them. Or should we? (P11)

Similarly, participants struggled to reconcile pre-existing concepts of patient participation with actual shared decision making:

> The family [. . . asked] "How are we supposed to make these decisions? [. . .] Shouldn't you be telling us?" [. . . I felt] so awkward and negative. (P3)

Hidden versus formal curricular tensions

Formal pre-clerkship curricula were perceived to emphasise patient-centred medicine; however, hidden clerkship curricula generally subverted formal curricula and were transmitted largely through the sub-themes of role modelling and institutional culture. Participants linked formal curricula with idealised student identities and hidden curricula with practising physician identities:

> I had this idea from [pre-clerkship] I'd ask someone their goals and they'd give me this nice story about [wanting] to make it to their granddaughter's wedding [. . .] That never happened [. . .] "Ugh, what do you mean my goals? I want to go home" and I wouldn't know what to check off on the form, so I started [saying] what the residents did, like "If your heart stops, do you want chest compressions?" (P15)

Faced with the disconnect between her expectations and the reality of institutional medico-legal culture, this participant adopted her resident role models' script catering to the latter. In thus negotiating hidden curricula, participants overlaid elements of their new roles and expectations on previously held idealised physician identities, often preserving some idealised elements while adapting others.

Role modelling

Clerkship role models exemplified curricular tensions. Positive role models were especially memorable by their demonstrations of empathetic and effective communication, as well as their acknowledgements of physicians' emotions:

> [There was] time for patients to ask questions or just process [. . . The staff physician] would debrief after and make sure we were emotionally OK [. . .] but he was the only one. (P14)

Negative role models were more pervasive, such as this physician demonstrating poor communication, depersonalisation and disrespect for patient confidentiality:

> [The staff physician would ask:] "Oh, has anyone discussed code status?" [. . .] Someone would run in and ask, "Do you have a DNR [do-not-resuscitate]?" [. . . Then] run back to the team outside in the hall and report, "No" or "Yes". (P8)

Indeed, hidden curricula were generally experienced opportunistically and associated with disgust, disappointment and guilt:

> There was just a feeling some people shouldn't be full code [. . .] like, "Ugh, really?" [. . .] It was so gross sometimes how [we] talked. (P15)

Institutional culture

Hospital culture was perceived negatively, and included ageism, paternalistic judgements about patients' quality of life, and dehumanisation. Emotional detachment was commonly expected:

> You should just not have any of these feelings any more. (P13)

Moreover, such attitudes were tolerated and even encouraged, with powerful hospital language reducing patients into numbers and code statuses:

> When I present [. . .] "58-year-old male, whatever, full code, or DNR" [. . .] That's the first thing everyone wants to know [. . .] At 3 in the morning [. . .] the values don't matter [. . .] If we have time, we can explore [. . .] what makes that person a person later. (P11)

Responses to emotional distress

These ethical dilemmas and curricular tensions led to emotional distress for most participants, with diverse, albeit mostly negative, responses, including feelings of inadequacy, frustration and anxiety. One participant emphasised a lack of support and supervision during her first GoC discussion:

> [I was] definitely scared [. . .] super-nervous and uncomfortable [. . .] No-one watched. (P2)

Another described a diminished sense of self:

> [I felt like] a complete fraud, because I really don't know what resuscitation looks like, I've never done CPR. (P4)

Five main sub-themes relating to how participants made sense of these experiences included symptoms of burnout, the pursuit of standardisation, rationalisation, compartmentalisation and the adaptation of earlier professional identities.

Symptoms of burnout

Participants commonly made sense of negative experiences by emphasising personal deficiencies and describing symptoms of burnout. Their language was imbued with shame and guilt, and emphasised helplessness, personal failure and pressure to take on responsibilities prematurely:

> I'm sure it wasn't good, but what was I supposed to do? I still feel, just, ugh [. . .] I should've spoken up and been like, no, [staff physician], you need to teach me how to do this properly [. . .] I failed. (P3)

> They just throw you in [. . .] You feel like crap [. . .] I'm going to let [patients] down. (P6)

Pursuit of standardisation

Observing physicians present GoC discussions, which are often inherently complex with prognostic uncertainty, differently to different patients was distressing to many participants. Most assumed these physicians were behaving unethically, preferred uniformity as a proxy for patient autonomy, and adopted the discourse of standardisation. Aspiring to a standardised professional identity with a theatrical quality to their adoption of associated behaviours, they used a more superficial discourse of acting, rather than embodying, in conceptualising identity:

> I wish there was a script we could just memorise. (P1)

By contrast, a few participants made sense of the same experiences with the discourse of diversity, embraced uncertainty, and considered this integral to the 'real doctor' identity:

> There's no right way [. . .] everything is kind of ambiguous, and that's just part of becoming a real doctor. (P13)

Rationalisation

Some participants also made sense of their experiences by rationalising their supervisors' questionable behaviours. Often referring to medical training's power differentials, they framed their senses of self within hierarchies and rejected previous self-concepts. One participant dismissed his discomfort with ageism, for example, as part of the student identity's naïveté:

> This 94-year-old patient [. . .] was [. . .] enjoying a really high quality of life, but everyone was chuckling at him being full code [. . .] it wasn't really fair [. . .] I didn't say anything though, like I'm just a med student [. . .] Maybe I'm just too naïve. (P16)

Other participants rationalised poor behaviours within broader power frameworks, considering physicians powerless in the face of systemic competing demands:

> There are always all these other things [to do. . .] You have to get through the day. (P5)

Compartmentalisation

Some participants managed emotional distress using their student identities as shields, separating themselves from 'real doctors':

> I'm not really like, a doctor [. . .] I haven't seen someone post-CPR [. . .] How can I be responsible? (P14)

A few participants demonstrated more extreme compartmentalisation by distancing themselves when witnessing unethical behaviours. Referring to his observation of a poor GoC discussion by another physician that he did not personally revisit, one participant remarked:

> It's not my responsibility because I'm not the [staff physician . . .] I'm not going to spend 20 minutes discussing a DNR. (P11)

Adaptation of earlier idealised identities

Despite predominantly negative responses to conflicts between their pre-clinical identities and clerkship experiences, participants continued to internalise values and norms they explicitly described as undesirable. To reconcile these competing aspects of identity, most conceptualised an insidious, inevitable maturation process necessary for functioning in the real world:

> I pretty quickly started using the same language everyone else was [. . .] it felt strange and wrong, like patients–these real people [. . .]–just became "82-year-old DNR man". I don't even know how it happened. (P1)

More rarely, some participants rejected negative role models and culture, reconciled identity conflicts through critical reflection, and preserved more idealised senses of self:

> In med school there's so much emphasis on [. . .] these discussions, but in practice, like, people don't do it [. . .] But I think it should really be all doctors' roles, like shouldn't we all care about patients' values and beliefs and goals and have that be part of your identity as a doctor? (P13)

DISCUSSION

To our knowledge, this is the first study to explore the relationships amongst medical students' experiences with GoC discussions, hidden curricula and PIF. Consistent with previous literature,[9,11,19,32] participants described conducting GoC discussions with minimal teaching, feedback or observation. Other than isolated positive role modelling, their experiences were almost uniformly negative and led to their feeling powerless, uncertain about their roles in decision making, and frustrated with others' unprofessionalism. Institutional culture, systemic pressures and negative role models were perceived to value knowledge, efficiency and documentation over humanism. Together, these hidden curricula subverted formal curricula and contributed to burnout. Building on prior studies, which suggest that GoC discussions are sources of conflict and distress,[14,17,64] as well as those demonstrating a decline in idealism during training,[44,65,66] this study goes further to show a negative impact on identity.

Often experienced as ethical dilemmas, GoC discussions in this study led to complex developmental processes as students realised their idealised pre-clinical identities conflicted with their clinical experiences. In the pursuit of efficiency, many considered empathy a liability to their professional identity, the crux of which they conceptualised as that of a medical expert. In thus implicitly deprioritising compassion, communication and advocacy, GoC discussions devolved into administrative tasks that were more about medico-legal form completion than about evaluating the overarching clinical picture as intended. This exemplifies the dangers that arise when overburdened health care systems prioritise efficiency and operate under disease-focused medical paradigms. These, in turn, often de-emphasise personal priorities that should ideally affect how evidence-based medicine is applied to individuals.[67]

This study further highlights the crucial role that emotion associated with GoC discussions plays in students' PIF, and builds on previous work suggesting a complex relationship between medical students' need to resolve emotional conflict and professional identity.[68] GoC discussions in this study were powerful encounters that often led to distress, burnout and self-conscious emotions such as shame and guilt. Other participants resolved emotional conflicts through critical self-reflection and preserved more patient-centred, empathetic elements of their developing identities. Still others seemingly accepted as inevitable transitions to colder physician-centred identities. These varied responses emphasise the complex ways in which students interpret similar experiences with different

emotional responses and attached meanings that, in turn, transform their pre-existing identities into professional ones. Feeling in control may influence their responses to complexity; in previous research lack of control has been associated with hiding behind others or distancing oneself.[69] This is consistent with the actions of some of this study's participants, who described feelings of powerlessness and responded with rationalisation of poor behaviours and compartmentalisation to absolve themselves of responsibility.

Implications

This study's most obvious implication is the need for improved GoC education. Participants consistently described themselves as inexperienced students independently guiding patients through important clinical decisions, potentially impacting negatively on both patient outcomes and students' PIF. It is, however, unclear how best to teach GoC discussions. Knowledge gaps, which contributed to distress in this study, are relatively easy to address. Students, for example, were largely unaware that physicians are intended to guide the patient flexibly based on the patient's values and desired degree of shared decision making[70,71] and instead felt those doing so were behaving unethically. Explicit teaching about best practices would therefore be likely to alleviate this source of distress. Additional multi-component, multimodality strategies to improve clinical reasoning around prognosis and complexity, promote humanism and resilience, and develop communication skills are also likely to be beneficial. Furthermore, learners require greater direct supervision and support; competency-based educational frameworks emphasising frequent observation with constructive, timely feedback[72,73] may help to address this.

By focusing on observable behaviours, however, competency-based medical education may also encourage reversion to behavioural models of professionalism in which complex, integrated tasks like GoC discussions are reduced to discrete behaviours.[39,74] Indeed, although structured communication interventions may promote person-centred communication,[75] some participants in this study pursued overly scripted approaches because they were uncomfortable with uncertainty and complexity. Physicians' tolerance of uncertainty is invaluable,[76,77] however, and curricular interventions to acknowledge and normalise complexity, uncertainty and associated anxiety should be encouraged.[77]

It may also be helpful for clinical teachers to address explicitly gaps in perspective between students and practising physicians. Earlier learners, as in this study, often negatively conceptualise emotional neutralisation, for example, whereas practising physicians may consider this a necessary coping mechanism.[78] Particularly as learners typically are reluctant to challenge medical hierarchies,[79–81] organisational change to promote cultures of safe, multidirectional feedback is crucial.

Faculty development strategies to encourage feedback about difficult clinical situations, incorporate anticipatory guidance about complexity and uncertainty, promote self-aware role modelling[82] and strengthen faculty members' professional identities as teachers[83] may be additional ways of imparting informal and hidden curricula more positively. Residents should also be targeted for role-modelling interventions because they are equally important to students as faculty members[84,85] and are at formative junctures in their own PIF.[86,87] Small group, facilitated discussions to provide learners 'opportunities to engage in active sense-making activities'[88] and discuss their experiences with end-of-life care may promote such professional growth. Examples of such interventions in medicine include Schwartz Centre Rounds[89,90] and Balint groups.[91,92] Near-peer-led small group sessions might be particularly helpful to facilitate discussion through reflective storytelling and prepare learners for negative role models.

Most fundamentally, this study raises the question of whether medical students should be leading GoC discussions at all. In this study, this appears to be an unintended consequence of promoting GoC documentation using standardised order sets. Participants reported that they typically completed these forms without staff physician involvement or subsequent review, and largely copied residents in asking scripted questions based on checklists as opposed to leading more meaningful GoC discussions. More broadly, this appears to be symptomatic of an overwhelmed, understaffed health care system with increasingly complex patients and administrative requirements; responsibilities have thus seemingly been downloaded prematurely to students, for whom there are no clear workload policies in Canada.[93] There are similarly no explicit, enforced policies with respect to the degree of supervision students receive, although it is hoped that this will improve with Canada's adoption of competency-based educational frameworks. In this study, these

overarching problems within health care delivery and medical education led to tensions between clinical efficiency, patient-centred care and educational needs, and contributed directly to poor GoC discussions and participants' distress. Structural and cultural changes requiring additional human and financial resources are ultimately needed to address these systemic gaps.

Strengths and limitations

This study examines previously unexplored areas in GoC discussions and medical education, and its qualitative, internally coherent methodology allows for the rich exploration of students' experiences. Limitations include the fact that it was conducted in the context of a single clerkship at a single institution, which potentially limits its transferability. Other limitations include selection bias with a low participation rate of 25%, and recall bias. Participants also varied in how much clerkship they had completed, and their approaches to end-of-life issues and identity are likely to have been influenced by other clinical exposures as well. We additionally did not seek patient, family, allied health, resident or faculty member perspectives, nor observe clinical encounters.

Future research

Further research is warranted into the effectiveness of educational interventions for GoC discussions, students' experiences with GoC discussions in other clerkships and at other institutions, as well as perspectives from other health care providers, patients and families. Other research areas of interest include further work on the impact of emotion on PIF; it may be particularly enlightening to explore the roles of diversity and equity as participants in this study frequently framed their experiences within power hierarchies.

CONCLUSIONS

In this study, inexperienced medical students often led GoC discussions with patients independently and experienced complex emotions as they reconciled earlier professional identities with newly developing ones. Improved education about GoC discussions is necessary for patient care and may represent specific and concrete opportunities to impact positively upon students' PIF.

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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

Appendix S1. Standardised goals of care documentation order set.
Appendix S2. Interview guide.

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