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Cover Page Footnote

The authors would like to acknowledge the residents and caregivers of the participating social model hospice homes, as well as the students and faculty in the CARE Program.

ORIGINAL RESEARCH REPORTS

Empathy Development Among Undergraduate Health Professions' Students Serving as Caregivers to Hospice Patients

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Abstract

Although empathy is considered a core competency for healthcare providers and has been shown to play an important role in improving patient outcomes, empathy development while working with dying patients is not well understood and may present challenges during clinical training. This qualitative study explored empathy development among 24 undergraduate health professions students participating in an experiential training program where they served as caregivers providing bedside care to hospice patients. An exploratory case study design was used to assess empathy development as expressed via responses to a series of questions and vignettes prior to and upon completion of the training program. Findings indicate a continuum of expressions of empathy and variations over time, suggesting there is value in providing opportunities to practice empathy and reflect on empathic expressions in end-of-life (EOL) care. Exploring empathy development and expression, including the impact of different pedagogical practices, is essential for quality EOL education.

Keywords: Empathy, End-of-life care, Health professions education, Experiential training, Qualitative

1. Introduction

A report by the Lancet Commission describes a critical need for understanding death and dying, including recognizing that it is a relational process and not just a physiological medical event [1]. The report calls for a greater understanding of how social factors impact end-of-life (EOL) care and for a shift in relationships between patients and practitioners from "transactional" to relationships based on "compassion and connection" ([1], p. 870). The important role compassion and empathy play in improving patient outcomes has been well illustrated through multiple systematic reviews conducted across varied healthcare professions (e.g., [2,3,51,52]). In addition to improving patient outcomes, empathy training is also associated with personal and professional growth of both students and practitioners [55]. Empathy has been described as both a state and trait [49,51] and responsive to situational cues [49], but extensive research suggests that "empathy is less like a fixed trait and more like a skill - something we can sharpen over time and adapt to the modern world" ([4], p. 15). While empathy can occur automatically, and provider characteristics may be a key predictor of empathy [51], practitioners in training can also make intentional choices to engage or avoid our empathic responses, and to change them on purpose [5]. Therefore, it is important to understand how empathy develops as well as how to promote it through clinical training.

Empathy is frequently described as a dynamic process with both cognitive and affective

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dimensions that, while independent from one another [6], comprise empathy as a whole [7]. With no universal definition of cognitive or affective empathy and reliance on self-report or observable behavior, there are significant challenges in measuring empathy and empathic communication [8]. Empathic responding in health professions involves transactions that reflect an acknowledgment of the individual's unique experience (i.e., it sounds like you are feeling very hopeless about your condition) while conveying concern and curiosity for the person even in situations where they might have trouble understanding (i.e., can you tell me more about what you are feeling?) [9]. Although empathic communication is considered a core competency for healthcare providers, research has shown that clinicians, including residents-in-training, are low in empathy and oftentimes miss opportunities for empathic responding [10–12]. In one study, one-third of emergency room residents were found to exhibit low empathy [13]. In another study tracking the extent to which attending physicians and residents-in-training responded to opportunities for empathy during first visits with oncology patients, researchers found that these doctors missed 70% of the opportunities presented to them, and that these missed opportunities were unrelated to the physicians' level of training [10]. Research has also shown that members of the hospice care team frequently miss opportunities for expressing empathy to family members [12]. Understanding empathic responses and the nature of these missed prompts is important in developing effective empathy training programs, especially given research suggesting that patient ratings of clinician empathy are highly variable [14].

Palliative and end-of-life care providers face unique emotional challenges and a high demand for empathic expression as a result of their regular exposure to death and dying [15]. Working with terminally ill patients may present unique challenges to clinicians expressing clinical empathy because the dying experience is not a shared one and clinicians cannot draw on prior dying experience which may make understanding the patient's perspective more difficult [16]. In addition, bearing witness to suffering and existential angst can require greater emotional demand and "empathic labor" [17]. Tending to dying patients can lead to greater moral distress as caregivers wrestle with their own questions on the meaning of life [18]. Empathic response may also be more difficult due to dying patients' rapidly declining conditions and challenges they often have communicating their needs during the final dying process. Furthermore, less is known about empathy development when working with patients at the end-of-life because of challenges conducting research with patients during this vulnerable time [19].

The three core features of clinical empathy include a cognitive understanding of the patient's pain and suffering, an ability to communicate this understanding, and an intention to alleviate the suffering [20] and the majority of studies measuring empathy in healthcare utilize tools aimed at these three features [8]. Expressing empathy to patients and family members during the final dying process may require additional or different empathic skills, especially when patients are dying at home while receiving hospice care. Training of clinicians rarely occurs in home settings or in situations where death is anticipated and expected. Given challenges in developing clinical training models that involve real patients in home settings, newer training approaches involve simulation labs, virtual reality exercises or standardized patients who are actors [43], despite evidence illustrating that medical training interventions aimed at increasing empathy are more successful when real patients are involved [21]. Most interactions with actual dying patients occur in institutionalized settings where death is often being treated as an acute medical crisis that must be tackled as opposed to a natural process that calls for a more holistic supportive approach to care. The current shift in end-of-life care from institutionalized settings to more community-based care models may require new knowledge and skills, especially when expressing empathy at the bedside.

Prior research indicates that experiential experiences are the most effective forms of empathy education [22]; however, the ways in which empathy develops is still poorly understood [23,24]. The lack of opportunities to train with real patients and a current emphasis in medical education on simulation and role play exercises presents special challenges for training hospice and palliative care clinicians. As more individuals in the U.S. are dying at home [25] and the number of Medicare beneficiaries enrolling in hospice care remains steady at 1.71 million individuals per year [48] with more hospice care occurring in community-based residential settings [26], a better understanding of how to best support patients and their caregivers in this setting during the dying process is needed. However, medical training is still widely occurring in academic medical centers and not in patients' homes.

While there has been little research on empathy training in hospice residential care settings, one study reported significant increases in empathy among undergraduates serving as caregivers to

hospice patients and family members during patients' last three months of life [27]. In this study, empathy was assessed using the Jefferson Scale of Empathy-Health Professions Version (JSE-HPS), a quantitative tool comprised of 20, 7-point Likert scale statements such as, "Patients feel better when their health care providers understand their feelings" and "I believe that empathy is an important factor in patients' treatment" [28]. While the JSE is widely used in empathy training interventions, the tool is limited by measuring one cognitive domain of empathy in healthcare overall [29] and it is not tailored to empathy for patients at the end-of-life. Endorsing questions about the value of empathy and the importance of understanding patients' feelings is different than describing responses to patients' existential angst and identifying whether, and how, approaches might change over time as the result of patient care interactions and feedback.

In order to obtain a greater understanding of how empathy develops and is expressed, this study set out to explore the development and expression of empathy among undergraduate health professions' students participating in an 8-week intensive program where they provided direct bedside care to hospice patients in their final months of life. In this blended experiential program, students were able to learn about the provision of patient- and family-centered end-of-life care directly from patients as well as through a structured curriculum that included online learning modules, reflective writing exercises, and weekly discussion sessions with peers, faculty, and hospice providers. The program was developed with the "Learn, See, Practice, Prove, Do" educational framework to promote competence in procedural skills while transitioning from the role of observer to that of a skilled care provider [30].

2. Method

An exploratory case study method was used to explore this complex phenomena in context and as a way to develop theory and inform educational programming and training interventions [31]. With a focus on questions of 'how' and 'why' [32], the exploratory case study method allows for in-depth, multi-faceted explorations of complex issues in real-life settings [33].

This study was approved by the Union College Human Subjects Review Committee. All participants provided informed consent prior to participation. De-identified data was analyzed by a full-time faculty member and certified death doula with training in research ethics through the Collaborative Institutional Training Initiative (CITI).

The sample included 24 undergraduate health professions' students (18 female and 6 male) who participated in an 8-week experiential end-of-life CARE (Community Action, Research and Education) program during which they served as surrogate family members and caregivers providing direct bedside care to hospice patients in their last three months of life. All students were enrolled in liberal arts colleges in northeastern U.S. and expressed interest in pursuing a career in a health profession (Medicine n = 10, Social Work n = 5, Physician Assistant n = 5, Counseling/Psychology n = 2, Pastoral Care n = 1, Public Health n = 1). Students completed 10 online learning modules while simultaneously spending 24 h/week providing bedside care to terminally ill hospice residents at a Social Model Hospice residential care home. Residential care homes that operate under a Social Model Hospice framework are community-run homes that aim to increase access to hospice for patients experiencing housing or caregiver instability [34,35]. A description of the program and accompanying online curriculum is reported elsewhere [36].

Within-case and cross-case analysis was used to assess empathy development among undergraduate health professions students in the experiential training program. A series of questions and vignettes designed to assess empathy were completed by students at the beginning and end of the program. The empathy related questions and vignettes were developed by a psychologist with a PhD in Personality and Developmental Psychology following a 2-h focus group discussion with student caregivers who were enrolled in the program in the previous year. Two case vignettes were created based on actual scenarios described by the students in these focus groups with one describing a patient-centered challenge and the other describing a more family-centered care challenge. In one vignette, the patient asks his caregiver why they should go through the trouble of providing care given the circumstances, noting that his death is likely to mirror his miserable life. Students were then asked to describe their responses to the patient including ways they might be helpful but also what risks might arise (for vignettes/questions see Table 1). In a second scenario, students were asked to respond to a family member expressing disappointment and guilt over not being able to take care of her terminally ill sibling. In the vignette the family member is distraught, noting that if their mother were alive, she would have found a way to provide the care needed. As a follow-up, students were asked again to describe their responses to the individual including ways they might be helpful but also what

Table 1. Empathy questions and vignettes.

Instructions/Vignettes	Questions
The following self-assessment tools ask you to reflect on your personal beliefs and experiences so that you may recognize the potential influence that these may have on your approach to resident care.	What are some of the most important things a caregiver can offer someone who is terminally ill or dying? Describe a scene of your own imagined death. What is happening, inside and outside you?
Consider the following imaginary scenario in which you are speaking with a terminally ill person or a member of their family. Say how you might want to respond, and consider the potential benefits and risks of your response:	
Jermaine (a terminally ill patient in your facility) says 'I don't know why you all go to so much trouble. I've had a shitty life, nothing's going to change that now. Why shouldn't I just have a shitty death, too?'	What are your hopes in making the response to Jermaine that you describe in the previous question? How might it be helpful? What risks do you see in making the response to Jermaine that you outlined?
Maria (the sister of a terminally ill patient in your facility) says 'Everyone thinks it's so wonderful that my sister is here – and it IS wonderful in lots of ways. You all do such a great job taking care of her. But in my heart, I know that it's just not right that she's getting that care from strangers. It should be ME taking care of her! I tell myself that's not really possible, with my kids and my work and living so far away – but still I know that it's my place to be doing it. My mother would have found a way to do it, if she were still here.'	What are your hopes in making the response to Maria that you describe in the previous question? How might it be helpful? What risks do you see in making the response to Maria that you outlined?

risks might arise (see Table 1). Asking students to reflect on potential benefits and risks of a selected response (words and/or actions) is a way to encourage perspective-taking and increase empathy [54]. Prior to reading vignettes, students were asked to describe the most important things that a caregiver might offer someone who is terminally ill or dying. In addition, they were asked to reflect on a scene of their own imagined death and describe what was happening within as well as outside of themself (see Table 1).

Student responses (n = 48) to the empathy-related questions and case vignettes were analyzed as measures of empathy. Responses were entered into NVivo and coded for within-case and cross-case analysis. Saldana's [53] first and second cycle coding methods were used, with the first cycle including descriptive and process coding, as well as magnitude coding, to indicate the level of existing empathy (e.g., novice, developing, advanced). As an exploratory study, we did not set a priori categories of empathy and the notion of levels of empathy emerged from the study data, informed by existing research on empathic responding in health professions [9]. The second cycle included elaborative coding to explore changes in expressions of empathy over time. Data were coded for magnitude (level of empathy expressed) and analyzed within cases. To enhance rigor and credibility, cross-case analysis was conducted by three members of the research team individually and then any questions or discrepancies were discussed and resolved. Analytic memos were created for each student and analyzed for contributions to our understanding of individual changes in expression of empathy. Due to the centrality of change over time, we conducted data analysis utilizing a combination of pattern-matching and cross-case synthesis [32,53].

3. Results

3.1. Expressions of empathy

Data indicated a continuum of expressions of empathy, from novice to developing to advanced. Not surprisingly, many students demonstrated significant limitations in their expressions of empathy about the dying process. Novice-level expressions frequently included assumptions about the end-of-life experience and how people feel or what they "should" be feeling, demonstrating a lack of awareness of the wide variety of experiences and emotions for dying patients and their families. They also were represented by expressions of concern about 'not knowing' how to respond. These expressions often emphasized binary language and concepts such as doing the "right" or "wrong" thing and/or a preoccupation with worrying about what to do if their responses were not well-received. There also tended to be a focus on seeing end-of-life situations with a 'positive' lens and framing circumstances solely in terms of what was right or bright, with little attention to more difficult emotions related to pain and sadness. Examples of novice expressions of empathy include statements such as: "*You still have life to live because you're alive right now so there's no reason why it can't be enjoyable.*" and "*You have so many obligations that you wouldn't be able to*

fulfill your role as a sister." Novice expressions also relayed an assumption that the location and type of care received was '*the best option*' or the '*right decision*' for the family. For example, "*I'm sorry about your past experiences, but now you are loved and will be taken care of,*" "*I am sure that Mary is happy to be at a place where she can be cared for by compassionate volunteers who will be here 24/7"* and *"It's okay that you have to work and take care of your children and it is more than okay that you allowed your sister to be here. I think you made the right choice for your sister and I am sure your mother would agree."*

Students with developing expressions of empathy articulated fewer assumptions than those with novice expressions, however they did not demonstrate the depth of attention to potential variations in feelings acknowledged by those with more advanced expressions of empathy. They tended to recognize the potential for pain and challenges at the end-of-life, and were frequently aware of potential risks with their engagement with and responses to patients. While they occasionally jumped to positive thinking, some also acknowledged efforts toward affirming and acknowledging challenging emotions. Some expressed challenges in responding to empathy prompts and vignettes, noting difficulty envisioning their own death or challenges in imagining how patients might respond to their comments. Overall, those with developing expressions demonstrated fewer judgments than those with novice expressions but more of their own beliefs and perspectives than those with advanced expressions. The following student statements offer examples of a developing expression of empathy:

> *"I would ask Jermaine why he feels that way, and let him know that I care for him and believe he deserves the dignity of a peaceful and comfortable death no matter what has happened in his life."*

> *"I either want Jermaine to realize that he is deserving of a comfortable and peaceful life or I want to distract him and uplift his mood. These things are helpful because either one would allow Jermaine to get his mind off of negative thoughts that may be holding him back from enjoying his last days."*

> *"My response would be that she may feel that it is her responsibility to care for her sister, but she has other responsibilities as well, and that is why we are here, to take some of the burden off of her and allow her to continue to focus on things that she has responsibility to do."*

Developing expressions of empathy often included validation of the feelings of patients and their families, however demonstrated a lack of understanding or could be perceived as dismissive. For example, "*I could see where you are coming from and I am sorry that you have had a shitty life*." or *"I'm sorry about your past experiences, but now you are loved and will be taken care of."*

More advanced expressions of empathy tended to demonstrate an ability to affirm and validate the feelings of residents and their family members, with recognition of different perspectives and the various needs of different individuals involved. Students with advanced expressions of empathy identified the importance of resident and family autonomy, centered the desires of residents and families, and were actively non-judgmental. They emphasized listening, presence, and the value of open-ended questions. Generally, these students noted potential risks in their engagement with patients at the end-of-life and their families. Many acknowledged they might make mistakes in what they say or how they respond, and affirmed the value of asking for help. Some explicitly noted their approach to seeking reassurance about their engagement with patients and families. Examples of advanced expressions of empathy include:

> *"A crucial thing a caregiver can offer is simply someone to listen to them. Also someone to simply be present with them in the same room if they are not strong enough to communicate."*

> *"Jermaine might not find the home a good fit and still argue with me about being here. This is totally fine because a home like this is not for everyone. I would respect his wishes if he didn't want to stay."*

> *"I am hopeful that she realizes she is not alone and also that she sees what she is doing is amazing in itself. Caring for someone can be just sitting by their bed and holding their hand. She might not feel like she is doing enough, but by just being there she is."*

Advanced expressions of empathy also identified an important nuance in providing validation, such as, *"Hopefully, Jermaine would feel validated and that I am not trying to offer solutions, but just show that I hear him."* Many included an explicit acknowledgment of the importance of empathy, presence, listening:

> *"The caregiver must be able to empathize with the terminally ill or dying person and accommodate the*

various pains or stresses they feel if it is within their role (a volunteer verses a nurse may have different limitations in this regard)"

"*Being present is really important, even if you aren't saying anything or the patient does not want to talk, I feel as though being there for the patient or just holding their hand is really meaningful.*"

"*I think the most important thing that a caregiver can offer to someone who is terminally ill is simply just a presence. Just being with someone can mean so much so that they are not alone.*"

3.2. Empathy development

Data was analyzed for changes in expressions of empathy over the course of student participation in the 8-week experiential training program. Using a qualitative data summary matrix that captured observations of empathy expressions over time, each student was assessed on a 5-point Likert scale from novice to advanced empathy (novice, novice/developing, developing, developing/advanced, advanced) both prior to and upon completion of the program. An increase of 1-point on the scale was considered a slight improvement, while an increase of 2-points or more was considered a significant improvement, with a decrease indicating similar levels of deterioration (see Fig. 1). In terms of changes in expressions of empathy, 46% of students demonstrated no change (e.g., developing level at both beginning and end of the program), 33% of students demonstrated a slight improvement (e.g., novice level upon entry and developing level upon completion, and 13% demonstrated significant improvement (e.g., novice level upon entry, advanced level upon completion). Among those for whom no change was observed, none were at the novice level; 55% were demonstrating developing expressions of empathy and 45%

Case	Novice 1	Novice/Developing 2	Developing 3	Developing/ Advanced 4	Advanced 5	Change score
1						+1
2						+1
3						+1
4						+1
5						+2
6						0
7						0
8						0
9						0
10						0
11						0
12						+1
13						+1
14						+2
15						+2
16						0
17						0
18						0
19						0
20						+1
21						+1
22						0
23						-1
24						-1

Positive change over time
No change over time
Negative change over time

Fig. 1. Changes in empathy by case.

were demonstrating developing/advanced or advanced expressions of empathy prior to the program. All those with significant improvement were demonstrating advanced expressions of empathy upon completion of the program. It is important to note that for 2 students (8%), a decrease in the level of their empathy expressions was observed. In both cases, the observed change was from developing/advanced expressions prior to program participation and developing expressions upon completion of the program.

4. Discussion

This study set out to explore the development and expression of empathy among undergraduate health professions' students participating in an experiential learning program where they assumed the role as surrogate family members providing direct bedside care to hospice patients in their final months of life. In this study, we did not examine possible mechanisms behind changes in empathic responding. Differences in empathic responding between participants and changes over time may have been due to many factors including individual intentions to engage in empathic responses and one's underlying beliefs about whether empathy can be improved, as research has shown that beliefs about empathy malleability influences efforts to empathize in challenging situations [5]. Empathic processes are influenced by emotional regulation that arises when individuals are observing and responding to another's emotion [37]. Novice empathy responses may be reflective of less advanced self-regulatory skills and a blurring of a self-other distinction that is important for mitigating empathic distress when observing the suffering of others [38]. To better understand factors that might predict empathy development during training, further research is needed on the roles that intentions, beliefs, emotions, and self-regulation play in empathic responding and empathy development among individuals being asked to address patients' or family members' experiences with pain and suffering.

While considerable research suggests that empathy plays a role in improving patient outcomes across a variety of healthcare professions (e.g., [2,3,51,52]), empathy development while working with dying patients is less well understood and may present unique challenges during clinical training. In this study, we examined empathic responses to targeted questions and patient vignettes depicting EOL care-related challenges of both a hospice patient and of a family member who was unable to provide care to her sister. Responses to these questions and vignettes were collected online at the beginning and end of their participation in the program. We expect that student responses at the end of the program were impacted by their program participation, which included 8 weeks of providing bedside care to dying patients, weekly online training modules, and weekly discussions where they were able to share their experiences of providing EOL care to real patients and their family members.

Studies have shown that responses of healthcare providers to vignettes correspond to response to actual behavior in clinical practice [39]. In our study, qualitative analyses were directed at assessing students' articulated empathic responses with a focus on examining whether their responses reflected different developmental levels of empathy and how these responses may have changed over time. Results revealed that empathic responses at the onset of the program varied greatly across students, with responses varying from novice to developing to advanced level expressions of empathy. This finding of different stages of empathy development was not surprising given the variability in students' prior exposure to dying patients and their experiences caring for someone at the end-of-life. Of greater interest was if and how empathy developed over the course of the program. The results revealed that nearly half of students (46%) showed either moderate or significant improvements in their expressions of empathy upon completion of the program. These changes in empathy development suggest the value in providing opportunities to both practice and reflect on their expressions of empathy with patients and family members to whom they provided care.

Notably, changes in empathy were not observed for an equal proportion of students (. However, in all instances where no changes in empathy was evident, the students were already demonstrating developing, developing/advanced, or advanced levels of empathy at the onset of the program. This suggests that in cases where no changes in empathy occurred, the students were already displaying high levels of empathy. Higher levels of empathy at the onset may have been the result of some prior experience working with or caring for seriously ill or dying patients. It is possible that students already exhibiting higher levels of empathy might be more interested in participating in a program that entailed direct bedside care of hospice patients. Future research might explore whether student characteristics (e.g., prior experience, major/discipline, gender, class year) are related to empathy development in end-of-life care.

In two cases (8), students actually exhibited decreases in empathy at completion of the program,

However, in both cases, developing/advanced expressions of empathy were observed prior to the program and a decrease to developing expressions was observed upon program completion. Possible reasons for the decline in empathy include empathy fatigue, general fatigue at the end of the program, or brevity in responses that made it more difficult to assess levels of empathy at the time. Research has shown that empathy among medical students declines over the four years of medical school [40,41], and it has been posited that the decline in empathy occurs with increased exposure to morbidity and mortality during students' clinical training years [40,42].

This study set out to examine empathy development more closely to expand prior research illustrating that undergraduate health professions' students participating in this same program exhibited increased empathy as measured by the Jefferson Scale of Empathy-Health Professions Version (JSE-HPS). In a scoping review examining empathy development among undergraduate healthcare students, concerns are raised about the limitations of the JSE-HPS when measuring empathy because it is a self-assessment tool with a focus on empathy as a cognitive construct [23]. This review notes the need for studies examining empathy development and not whether empathy was present in a given encounter, highlighting a distinction between expressions of empathy and empathy development. Empathy is an iterative process that requires honing both verbal and nonverbal communication skills, especially when dealing with patients at the EOL who often experience a rapid decline as death approaches and who may struggle to communicate their care needs.

Empathy and compassion are needed in caring for individuals at the end of life; however, teaching and assessing empathy in hospice care settings presents unique challenges. Given the difficulties in working with patients at the EOL, many training programs utilize simulations [43]. However, simulations regarding care of dying patients lack fidelity and may not provide opportunities for developing key components of empathy such as emotion regulation, compassion, personal distress, emotional contagion, cognitive empathy, and additional research is needed investigating whether emotional sharing and perspective taking may be critical to expressing empathy [44]. Future research is needed to explore potential variations in empathy development utilizing different approaches, including case study, simulation, and experiential training. In addition, future research that includes patients' or their proxies' perceptions of empathy responses by their caregivers are needed, especially in light of studies illustrating that patients' assessments of clinicians' empathic expression do not match that of physicians [50]. Future studies might employ observer-rated analysis of videotaped interactions between caregivers and patients as has been done in prior research with physicians and their patients [45]. Most of the research on empathy has been conducted with physicians and nurses in clinical settings where the focus may have been on curative measures. In this study, all patients being cared for by students were in their last few months of hospice home care and the focus of their care was on managing symptoms and promoting comfort in a homecare setting.

4.1. Limitations

There are limitations of this study beyond those associated with the use of vignettes when conducting research, including validity and interpretation [46]. Although changes in empathy are described based on responses to clinical vignettes and questions, we did not assess whether students acted on opportunities for empathy during their work caring for hospice patients. In addition, we were unable to assess the extent to which empathy development and expression may have been influenced by various components of the program, such as online module content, the experiential training component, or reflective dialogues with faculty and student colleagues.

5. Conclusion

In this study, we found that health professions students approached EOL care with various levels of pre-existing empathy for terminally ill patients and their families. Related, there were notable variations in how much change was observed in students' expressions of empathy over the course of their time providing EOL care. While many theories of empathy suggest it is largely innate and thus not susceptible to large changes over time [47], others have suggested that empathy is a skill that can be strengthened by effort [4]. Health professions educators regularly identify empathy as a central element in health-related communication and the provision of care [41]. Thus, it is important that we continue to investigate mechanisms for better understanding of this complex phenomenon, the impact of various pedagogical practices on empathy development, and the potential value of both practicing and reflecting on expressions of empathy during professional training.

Ethics information

This study was approved by the Union College Human Subjects Review Committee. All participants provided informed consent prior to participation. De-identified data was analyzed by a full-time faculty member and certified death doula with training in research ethics through the Collaborative Institutional Training Initiative (CITI).

Conflicts of interest

There are no conflicts of interest to report.

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