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ORIGINAL RESEARCH

# 'I found myself a despicable being!': Medical students face disturbing moral dilemmas

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## Abstract

**Context:** The psychological realm of medical students' moral experiences is explored tangentially in medical education literature, often in the context of ethics or professionalism education. This study deepens our understanding by (a) investigating the nature of moral dilemmas experienced at the onset of clinical practice, (b) exploring students' emotional response to these dilemmas, and (c) examining how students perceive the influence of these dilemmas on their professional development.

**Methods:** This is a cross-sectional qualitative study carried out in 2017 that applied thematic template analysis to individual interviews performed with last-year medical students. The interviews followed the drawing of a Rich Picture representing moral dilemmas experienced by medical students at the onset of clinical practice.

**Results:** Moral dilemmas have four intertwined dimensions. The first relates to students' struggle to prioritise, balance and apply conflicting moral values; the second comprises the clash between students' inner motivation and the external constraints that limit the moral action; the third refers to the conflict between students' current attitudes with the desired/idealised attitudes of the doctor they intend to become; and the fourth corresponds to weighting conflicting ethical principles during the moral decision. Students' emotional responses are intense and long-lasting, and with a remarkable residue effect, particularly when the moral decision does not align with their moral beliefs. Moral dilemmas are impactful experiences that affect the professional development of medical students and can culminate in both detachment and growth in moral courage.

**Conclusion:** Moral dilemmas are memorable, complex and emotionally intense experiences that impact the professional development of medical students. Understanding students' moral dilemmas can help educators to devise pedagogical activities to anticipate and reflect on these experiences. These activities should happen under the guidance of a non-judgemental facilitator, capable of listening and legitimating students' thoughts and feelings while providing insights to nurture their professional development.

# 1 | INTRODUCTION

Medical training is a moral endeavour.[1] During the undergraduate course, to honour the social contract of the medical profession, medical students need to embrace a set of ethical principles—autonomy, beneficence, non-maleficence and social justice—and moral values, including respect, compassion, integrity and honesty.[2] Internalising these principles and values is crucial to becoming a doctor, but not enough to succeed.[3,4] At the onset of clinical practice, medical students also need to articulate different and often conflicting personal and professional values meaningfully to decide the best course of action in complex clinical cases.[5] To find the best course of action, medical students struggle to signify, deal and cope with different moral dilemmas.[6-8] Moral dilemmas are particularly challenging when students' decisions and actions end up not aligned with their inner moral beliefs.[9] Dealing with the consequences of such conflicting decisions may evoke intense emotional responses and affect medical students' professional development.[10,11] In this study, we aim to map and understand the complexity of medical students' moral dilemmas experienced at the onset of clinical practice. We also explore students' emotional reactions and the effect of these experiences on their professional development. We believe that this understanding is vital to guide the design of tailored pedagogical strategies to nurture and support students' personal and professional development.

In medical education literature, the psychological realm of medical students' moral experiences is explored tangentially in the context of professionalism or clinical ethics education.[7,8,12-14] The focus of these educational interventions often relies on understanding the 'right' professional behaviour or applying the 'right' ethical principle in a particular, conflicting circumstance.[13,15,16] However, observing students' moral experiences in the light of professionalism or behaviour rules may not be sufficient to capture their complexity and depth.[4,17-20] Research shows that these moral experiences, particularly moral dilemmas, may represent a source of emotional suffering and impact students' professional development.[21-24] We define a moral dilemma as a situation in which students have to deal with two or more conflicting values, and the available choices support mutually inconsistent courses of action.[9] We believe that without a deeper understanding of these moral dilemmas, medical educators may not succeed in supporting students' development. We claim that to move the focus of teaching professionalism by sharing behavioural rules to nurturing professional identity formation, clinical teachers and medical educators need to understand how students deal with the challenge of applying the professional values of the medical community in the context of real clinical activities.[4,25] In other words, medical educators need to understand how students develop a 'medical morality'.

In our study, we define moral values as the desirable characteristics of an individual that are relevant to living a good life.[3,26] Medical educators consider internalising values such as altruism, justice, courage, integrity, respect and fidelity as vital to become a good professional.[3,27] However, developing a medical morality involves not only internalising the professional values but also learning how to balance these values with personal values while making wise moral decisions aiming for patients' benefit.[28,29]

Interestingly, emotions can influence the engagement of medical students with moral dilemmas.[30] There is a vast and diverse literature on moral judgements, reasoning and its development, and, in our study, we align with Haidt's synthesis,[31] in which the author suggests that we activate two distinct mental processes to reach a moral decision. One is automatic, fast and subconscious, occurs under a strong influence of affective modulation, and is called moral intuition.[31] Moral intuition relies on good-bad/like-dislike reactions. The second mental process is slow, conscious and effortful, occurs through a cognitive process of balancing different perspectives, and is called moral reasoning.[30,32,33] Moral reasoning also suffers the influence of primary affective modulation, but, at the same time, relies on searching for and weighing evidence.[31] When facing a moral decision, we have a first automatic judgement driven by our moral intuition. After this first response, we may or may not engage in a moral reasoning process. When we engage the moral reasoning process, it often corroborates or justifies our 'gut feeling' (moral intuition). However, the moral reasoning process can also change our first judgement, mainly when an internal drive or external questioning triggers the deepening of the reflection process.[31] Hence, students' emotional responses to moral dilemmas may modulate both their moral intuition and reasoning[10,34,35] and influence the decision-making process.

Moral decision making may be especially emotional and overwhelming when medical students are dealing with moral dilemmas at the onset of clinical practice. Although the trajectory to become a doctor varies worldwide in terms of duration, it shares a similar overall structure: pre-clinical training, undergraduate clinical training, specialised (postgraduate) training and independent practice.[36] The transition from classroom education to the real clinical scenario exposes students to healthcare complexity and is an emotional moment accompanied by intense and transformative learning.[36] This transition is challenging particularly in contexts of under-financed and disorganised healthcare systems,[37] and may lead to unintended and harmful consequences such as empathy loss, burnout, cynicism and emotional suffering.[38-40]

When dealing with moral dilemmas in this period of transition, the clash between different perspectives and values often brings an extra burden for junior and inexperienced professionals.[7] For instance, in the context of a group or team, different viewpoints need to be considered and balanced before reaching a final moral decision.[41] The different moral stances of patients and families need to be weighed, and the constraints of the healthcare system also impact on the moral decision.[42] Thereafter, these decisions often have a degree of imperfection, and doctors and medical students alike should ponder, anticipate and deal with the consequences of their actions.[15] Considering this complexity and uncertainty, it is understandable that moral dilemmas can evoke intense emotional responses, such as frustration, anger and anxiety, and often lead to emotional exhaustion, compassion fatigue, emotional dissonance and feelings of abandonment by their organisations and peers.[43]

Considering the foreseen complexity of students' moral dilemmas, we believe that the professional and ethical dimensions are not enough

to comprehend these experiences fully; medical educators need to include the emotional and personal dimensions in this equation. For instance, although there is a general agreement on the relevance of medical students' emotional responses to these dilemmas, we still have only a superficial understanding of how these emotional responses happen, for how long and with what consequences for their professional development. Besides, we still do not know how these emotions influence students' future professional behaviour and identity development.

Clinical educators may take advantage of understanding the complexity of students' moral dilemmas to devise specific pedagogical interventions to support and nurture students' professional development towards patient-centred care based on the values of the medical profession. This study aims to contribute to the discussion on medical students' professional development by exploring the following research questions: (a) What is the nature of the moral dilemmas experienced by medical students at the onset of clinical practice? (b) How do medical students emotionally react to those dilemmas? (c) How do medical students understand the impact of those dilemmas on their professional development?

## 2 | METHODS

### 2.1 | Design

This is a cross-sectional qualitative study that applied template analysis,[44] a variation of thematic analysis,[45] to a data corpus consisted of individual interviews complemented by the visual method called Rich Pictures.[46-48] Our data analysis aligns with a social constructivist paradigm, which acknowledges the multiplicity of interpretations of what we call reality.

### 2.1.1 | Context

We carried out the study with sixth-year students from a medical school in Brazil. In Brazil, the medical course is six-year-long, and during the last 2 years, medical students engage in daily clinical activities, often with a protagonist role. Recently graduated students can practise independently without additional residency training, which justifies this early engagement in intense clinical practice. The interviews were conducted with students during their sixth year, which means that students had at least one year of in-hospital clinical practice—a year when they progressively become more autonomous.

### 2.1.2 | Participants

We invited students from different rotation groups, genders and socioeconomic contexts to participate. We were particularly interested in students willing to share their experiences, so we adopted the following strategy. DLR, the main author, approached students' groups during their clinical rotations when he explained the research and its methodology. Afterwards, DLR waited for the ones interested in participating to come after him and schedule the interview. This strategy helped us to identify students highly motivated and open to share their dilemmas. In the agreed day, students signed the consent term, drew a Rich Picture and were interviewed. In total, 13 students (12% of the whole of last-year students) volunteered to participate, seven females and six males with an average age of 23.8 years.

### 2.1.3 | Rich picture

The 'Rich Picture' is a visual method derived from systems engineering that uses pictorial representations to capture an individual's perspective of a situation, including objects, ideas, people, character, emotions, conflict and prejudices.[46] The Rich Picture method instigates participants to think differently about their experiences and express ideas that are difficult to put into words uncovering taken-for-granted perceptions and assumptions.[46] In medical education research, the Rich Pictures have been used to explore complex situations, such as emotional reactions and motivation of trainees,[49] medical expert judgements[48] and learning in the clinical environment.[50] Considering the emotional aspects of moral dilemmas and their expected complexity, we hypothesised that Rich Pictures would add to traditional interviews by allowing participants to deepen their reflections and bring the emotional and subconscious aspects of their experiences.

### 2.2 | Data collection

First, DLR oriented the participants to draw a real situation that happened during a clinical rotation in which they experienced a moral dilemma. DLR explained the concept of a moral dilemma as described in Appendix 1. Next, the participants were left alone in a private room for 20 minutes with a large sheet of paper (11.7 × 16.5 inches) and a selection of grey and coloured pencils and markers to make the drawings. After that, DLR returned to the room to interview the participants (average time = 37 min).

The interviews were organised into five steps as described in Appendix 1.

### 2.3 | Data analysis

We used a visual approach to analyse the Rich Pictures and applied template analysis to make sense of the data collected through both pictures and interviews.

### 2.3.1 | Template analysis

DLR and MAC-F independently read the first four transcripts and come up with an initial coding by identifying participants'

descriptions of conflicts, decisions, actions, behaviours, attitudes and emotions. Next, the two researchers consolidated the codes into preliminary themes through an iterative, collaborative and consensual process. DLR translated the same four interviews into English. MC and EH had access to the translated interviews and joined the discussion to deepen the understanding of the themes and identify gaps in the data that required additional exploration. MC is fluent in Portuguese, knows the Brazilian context and was able to read the original transcripts. MAC-F and MC, who are also bilingual, read and checked the translation at group meetings and helped EH and DJ to make sense of what was being said in the interviews whenever an element was not understood. They also guaranteed that the translation was faithful to the meanings conveyed, especially when metaphors, slangs or idiomatic expressions were used. At the end of this stage, DLR, MAC-F, MC and EH generated the first template.

Next, DLR performed, transcribed and coded nine additional interviews. DLR and MAC-F used the first template to explore further the next interviews also in an iterative process, qualifying and refining the analysis. The template matured after each interview by the incorporation, elaboration, suppression or transformation of the previous themes. Whenever necessary, the research team generated new codes to capture new meanings, not yet covered by the preliminary codes and themes. DLR and MAC-F had regular meetings with MC and EH after each actualisation of the template to elaborate further on the themes and mature the templates.

In parallel to the interviews, each one of the drawings was independently analysed in group sessions with the participation of DLR, EH, MC, MAC-F and DJ. The group sessions followed the same structure: first, DLR presented the drawing to the researchers who were not familiar with the interview's content. The researchers engaged in a conversation to describe the picture without further interpreting its meaning. At this stage, the researchers focused on the utilisation of space, colours, metaphors and symbols. Second, the researchers discussed the possible interpretations of the drawing elements and tried to figure out the message conveyed. Third, DLR shared the story behind the picture and discussed it with the group to broaden the understanding of the situation and explore its nuances, always returning to the research question in a meaning-making exercise.[51,52] The group tried to identify the dilemmas at hand, its constituent elements, the values involved, the main characters, students' emotional responses and the consequences for their professional development. Each section lasted around 1 hour and was taped by DLR, who kept a logbook of the meetings to elaborate on the issues discussed and cross-reference them with the transcribed interviews. The logbooks were essential to keep track of the reflective process.

We also performed two 'gallery walks' to analyse the visual data. A 'gallery walk' is a session in which we expose all the drawings together and discuss similarities and discrepancies, intending to further elaborate on the research questions.[46] The 'gallery walk' sessions relied on researchers from our Rich Picture research group. During the 'gallery walk', the researchers reflected on the specificities of the students' experiences (cultural, clinical and environmental), grabbing particular attention to the graphical representation intensity of the students' emotional reactions. During the gallery walk, DLR made notes to capture new insights and understandings that could inform data analysis.

The process of data analysis constantly informed the process of data collection and vice versa, allowing to build mind maps showing all the elements of Rich Pictures and interviews to construct a coherent story, and examine whether those dimensions summarised the data sufficiently. Similarly, the analysis of the interviews and drawings happened dialogically. We ceased data collection after 13 interviews when our understanding of the research questions reached a satisfactory level of complexity.[53] DLR and MAC-F presented a first draft of the final templates to EH and MC. EH and MC applied the templates to a sample of two interviews to explore missing themes and check their accuracy. Finally, all the authors engaged in a final discussion and agreed on the final version of the templates.

## 2.4 | Research group and reflexivity

Our research group included people with different and complementary expertise that we judged relevant for the process of data analysis. DLR and MAC-F are medical doctors and clinical teachers with experience in undergraduate and postgraduate medical education who have worked in the same institution where the data were collected. EH and MC are also medical doctors and clinical teachers working in a different country within a different context. DJ is a full professor in medical education with vast experience in qualitative research and comes from a different professional background. EH, MC and DJ were responsible for helping DLR and MAC-F to analyse the data through a different perspective, 'making strange' what was already accepted as natural or part of the culture. EH and MAC-F have experience in using visual methods in medical education research.

## 3 | RESULTS

All Rich Pictures depicted complex real-life situations in which students experienced a moral dilemma in clinical practice.

We identified three main themes in our data: 'moral dilemmas are complex and multidimensional', 'moral dilemmas are memorable and intense emotional experiences with long-lasting consequences' and 'moral dilemmas impact on professional identity development'. We present each theme along with a specific template (Tables 1 and 2) with representative quotations and an example of a Rich Picture (Figures 1-4).

## 3.1 | Moral dilemmas are complex and multidimensional

Moral dilemmas faced by medical students are complex, multifaceted situations with, at least, four dimensions, as shown in template 1 (Table 1) and Figure 1.

**TABLE 1** Template 1—Dimensions of moral dilemmas experienced by sixth-year medical students (n = 13) with example quotations extracted from interviews performed at the State University of Campinas, Brazil, 2017

| Template 1—Dimensions of Moral Dilemmas | | | |
| --- | --- | --- | --- |
| 1. Internal conflicts | 2. The conflict between internal values and external constraints | 3. The conflict between the ideal doctor and the possible doctor | 4. The conflict between ethical principles |
| 1.1. Conflicts of fidelities<br>1.1.1 Fidelity to own values vs fidelity to supervisor<br>1.1.2. Fidelity to own values vs fidelity to the rules<br>1.1.3. Fidelity to own values vs fidelity to the values of a medical specialty<br>1.1.4. Fidelity to own values vs fidelity to patients' values<br>1.1.5. Fidelity to the patient vs Fidelity to the multiprofessional team<br>1.2. Conflicts of needs<br>1.2.1. Address healthcare system needs vs address patients' needs<br>1.2.2. Address patients' families needs vs address patients' needs<br>1.2.3. Address personal needs vs address patients' needs<br>1.2.4. Respect for the supervisor vs address patients' needs<br>1.3. Connecting with the patient vs avoiding personal suffering<br>1.4. Feeling excited by reaching the right diagnosis vs Understanding patient suffering<br>1.5. Advocating for the patient vs aligning with the multiprofessional team | 2.1. Constrains related to lack of autonomy<br>2.1.1. Students' autonomy vs top-down decisions<br>2.1.2. Students compelled to act against their beliefs<br>2.1.3. Students compelled to follow a therapeutic plan that was devised by others<br>2.2. Constrains related to lack of support<br>2.2.1. Students' views and feelings not acknowledged by supervisors and multiprofessional team<br>2.2.2. Lack of peer support<br>2.2.3. Lack of time to deliver proper care (work overload)<br>2.3. Students learn patient-centred care but feel obligated to deliver disease-centred care | 3.1 The doctor students want to become vs the doctor students are allowed to be<br>3.2. The doctor students want to become vs the doctor who aligns with healthcare system constraints<br>3.3. The doctor students want to become vs the doctor students are<br>3.4. The doctor students thought they could be vs the doctor students manage to be | 4.1. The inevitability of death vs therapeutic futility (non-maleficence vs beneficence)<br>4.2. Therapeutic futility vs scarce resources (non-maleficence vs equity)<br>4.3. Braking bad news (autonomy vs non-maleficence)<br>4.4. Address healthcare system needs vs address patients' needs (beneficence vs equity) |

**TABLE 2** Templates 2 and 3—emotional and behavioural responses to moral dilemmas experienced by last-year medical students (n = 13) with example quotations extracted from interviews performed at the State University of Campinas, Brazil, 2017

| Template 2—Emotional responses to moral dilemmas | | | | |
| --- | --- | --- | --- | --- |
| 1. Emotions during moral reasoning | 2. Emotions aroused when students' morality does not align with the moral decision. (Predominantly negative) | | 3. Emotions aroused when students' morality aligns with the moral decision. (predominantly positive) | |
| 1.1. Detachment<br>1.2. Freeze<br>1.3. Anxiety<br>1.4. Anger<br>1.5. Willingness to run away | 2.1. Anger<br>2.2. Frustration<br>2.3. Disgust<br>2.4. Solitude<br>2.5. Abandonment<br>2.6. Shame<br>2.7. Guilty<br>2.8. Remorse | 2.9. Flee<br>2.10. Powerlessness<br>2.11. Compassion<br>2.12. Low self-esteem<br>2.13. Anguish<br>2.14. Sadness<br>2.15. Dissonance<br>2.16. Regret | 2.17. Contempt<br>2.18. Fear<br>2.19. Hopelessness<br>2.20. Insecurity<br>2.21. Bothered<br>2.22. Losing Control | 3.1. Pride<br>3.2. Happiness<br>3.3. Courage<br>3.4. Realisation<br>3.5. Honour<br>3.6. Peace |
| **Template 3—Behavioural responses to moral dilemmas** | | | | |
| 1. Immediate responses | 2. Reflection in action—responses to negative emotions during the dilemma (the dilemma may last from hours to days) | 3. Reflection on action – planning the behaviour in future dilemmas | 4. Long-term consequences on professional development | |
| 1.1. Detachment<br>1.2. Moral distress<br>1.3. Freezing<br>1.4. Crying<br>1.5. Searching for support within the team<br>1.6. Hiding | 2.1. Subservient responses<br>2.1.1. Follow the rules<br>2.1.2. Detachment<br>2.2. Autonomous responses<br>2.2.1. Fight against the system<br>2.2.2. Act independently<br>2.2.3. Adopt patient-focused attitudes<br>2.3. Avoid similar situations | 3.1. Rational control of behaviour<br>3.2. Search for positive role modelling<br>3.3. Fight for patient-centred care<br>3.4. Search for autonomy in future decision making<br>3.5. Commitment to improving moral decision making<br>3.6. Professional growth | 4.1. Avoidance of similar situations<br>4.2. Development of resilience<br>4.3. Understanding doctors' responsibility beyond clinical care | |

**FIGURE 1** 'The Bottomless Hole' (Rich Picture 2—RP2/State University of Campinas, 2017-2018): The student (Rose—fictitious name) depicts the experience of caring for an 18-year-old man (Luca—fictitious name) with end-stage cancer. Luca was admitted to the hospital, and Rose was responsible for evaluating him every morning and discussing his case with the multiprofessional team. Rose was very critical about the therapeutic plan mainly because it included procedures perceived as futile, such as daily blood transfusions (represented by the tap with blood drops on the drawing). Rose was also uncomfortable with the team's decision of not disclosing to Luca the terminality of his condition. After two weeks of clinical deterioration, Rose decided 'to tell the truth' (in her words) to Luca—a decision that is represented on the drawing by Rose giving him a key. By being honest with Luca, Rose felt she was disobeying a direct order from her supervisors. The following day, Luca died. Rose felt a mix of pride and guilt—both related to her finding the courage to be honest; both still present in the day she made the drawing, although the situation had happened two years before the interview. The title of the picture ('The Bottomless Hole') refers to the futility of transfusing blood to a terminal patient that has uncontrollable bleeding. At the bottom of the drawing, the female character trying to close the hole that is leaking blood is the mother of the patient. At the top right, the boy trying to close the tap is another patient who needs blood to survive and has a better prognosis

The first dimension happens in the psychological realm of students and refers to their struggle to prioritise, balance and apply conflicting moral values in the context of real clinical interactions. Students need to make choices; choices that always lead to some degree of perceived loss. In this process of developing a hierarchy of values and making a choice, students realise that moral decisions are often imperfect. This imperfection brings to light the conflict between students' idealised view of medical practice and the reality of clinical work. This first dimension is the most complex, and different internal conflicts can coexist in the same moral dilemma (Table 1). [Correction added on 12 February 2021, after initial publication on 15 December 2020; the displayed quote in the section entitled "Moral dilemmas are complex and multidimensional" was initially omitted due to a production error and has been reinstated.]

RP2 (Figure 1): When I told him (the patient) that he was not coming home, he said, "What do you mean? I have so much to live!" And then, at this moment, it looked like … my floor collapsed, you know? Because I was all the time evaluating him from outside of the "hole," and then I had to get inside the "hole," at least a little bit, to get closer to him. That is why I drew this ladder in which I am holding myself because I do not want to get inside entirely… I do not want to get inside entirely… I do not want to feel it totally; I wasn't mature enough, I was not able to understand that (the situation); I could not deal with that; I wanted to get inside and keep myself out of it at the same time. Do you understand?
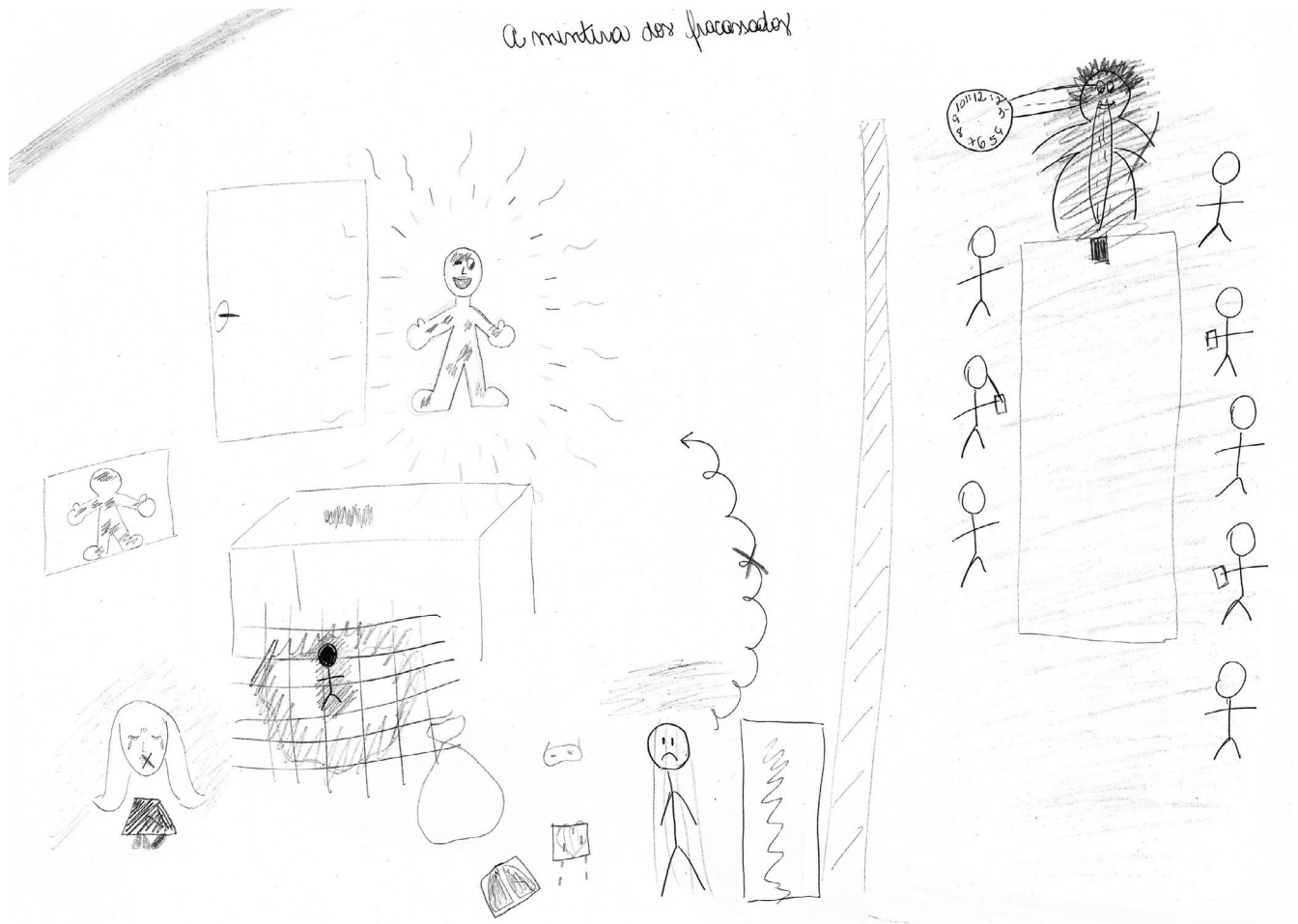
**FIGURE 2** 'The Lie of the Losers' (Rich Picture 1—RP1/ State University of Campinas, 2017-2018): The student (Martha—fictitious name) portrays a situation of a patient (Joseph—fictitious name) who had skin cancer (melanoma) and was being followed by two medical specialties, oncology and gastrosurgery. Joseph had an antecedent of ocular melanoma treated with surgery and had been submitted to a complimentary exam to investigate the presence of metastatic disease. Martha was responsible for Joseph's consultation at the gastrosurgery out-patient clinic, and during the consultation, Joseph expressed to Martha his desire to know the result of the exam. Martha agreed on sharing the results with him if they were already available. Martha left the office to check the results and found they were positive for metastatic disease (the shining lines around the patient on the drawing, which is the figure close to the door). However, during the discussion of the case, Martha's supervisor (the red-hair monster with a giant tongue on the top right) did not give her permission to break the bad news, claiming that the oncologists should be the ones responsible for sharing the progression of the disease with Joseph. Martha followed the orientation of the supervisor and lied to Joseph, saying that the results were not ready yet. As a consequence, Martha ended up feeling incredibly frustrated and guilt, as well as ashamed, sad and angry. She thought she was not 'brave' enough to respect Joseph's wishes (Martha is the small sticky figure behind bars on the drawing in the middle of a puddle of sweat and tears). The title of the picture—The Lie of the Losers—refers to how Martha perceived the situation: doctors (including herself) as liars and cowards and the patient as a brave person who wants to face the future with a realistic and positive attitude

The second dimension comprises the clash between the inner motivation of students, grounded in their moral values, with the external circumstances that constrain the decision making, such as the hierarchical clinical environment, or the (lack of) structure and organisation of the healthcare system. Students often feel oppressed by the interaction with the supervisor or multiprofessional team, both perceived as authoritarian. The perceived lack of support from peers often represents an additional challenge. As a result, students struggle to align their internal values with the contextual constraints and to nurture the moral courage necessary to fight the system, stay faithful to their beliefs and pursue patient-centred care (Table 1).

RP2 (Figure 1): When I considered the possibility of talking about his disease, of exploring what, and if he (the patient) knew about the terminality of his condition, they (the clinical supervisor and the psychologist responsible for the case) were always negative. They said: "Do not say anything! He already knows, but he does not want to talk about that. He does not want to know." And I did not understand why I could not be honest with the patient. Then, I started to realize what was going on (the supervisors had decided not to share the terminality with the patient), and my first
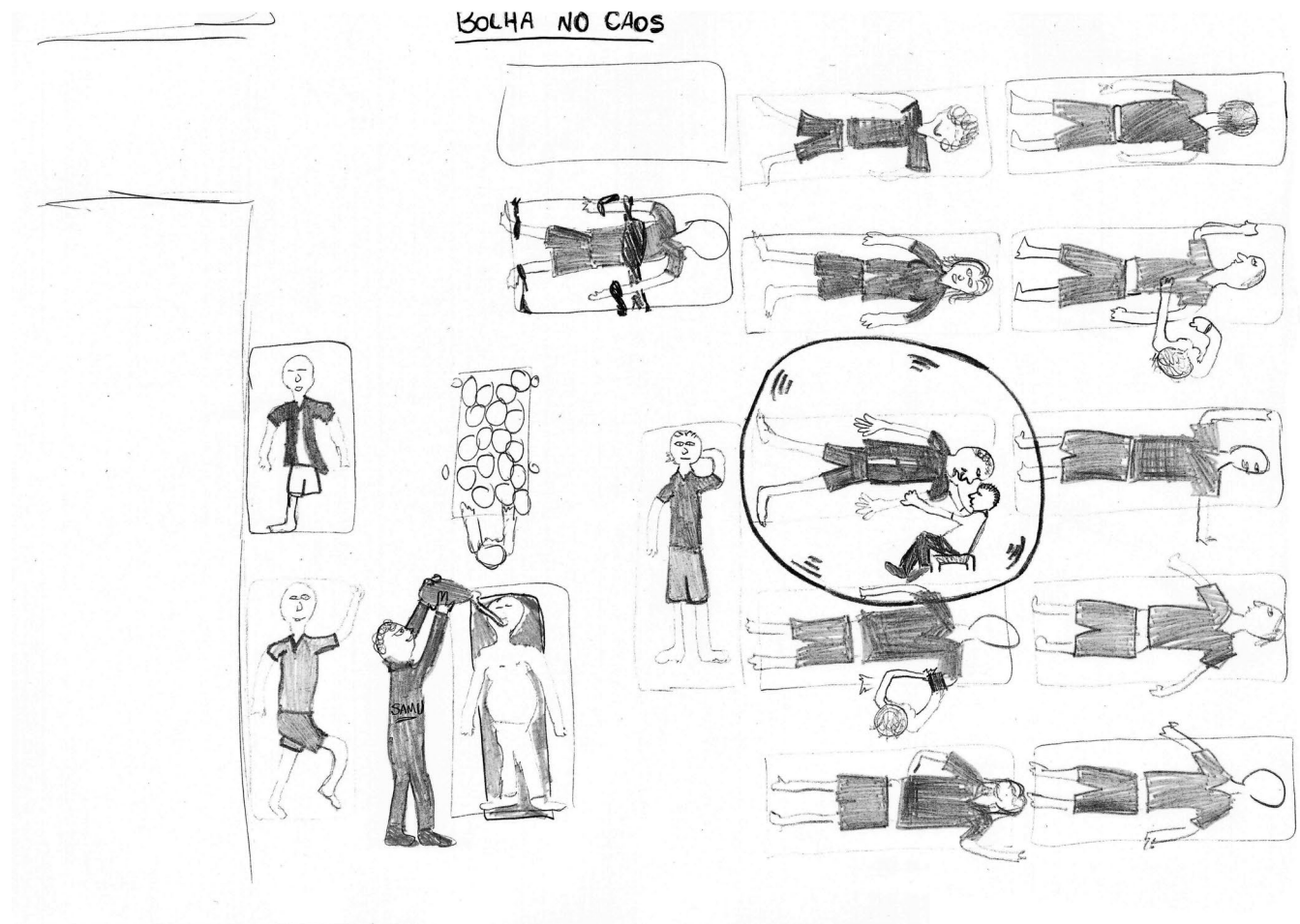
**FIGURE 3** 'Bubble in the Chaos' (Rich Picture 3—RP3/State University of Campinas, 2017-2018): The student (Albert—fictitious name) depicts an experience of being responsible for a 55-year-old patient in the ER, during his emergency training period. When Sebastian (patient's fictitious name) came with his daughter, he was not aware of the oesophagus cancer diagnosis. Albert was responsible for breaking the bad news to Sebastian. After their first conversation, which was time-restrained because of work overload, Albert felt frustrated because he could not offer Sebastian enough time to elaborate on his emotions and concerns. In the following day, during a second encounter, when Sebastian was still in the emergency department waiting to be admitted to the hospital, Albert decided to create the opportunity to deepen the conversation. Albert was capable of addressing and understanding Sebastian's feelings and anxieties and creating a welcoming environment, even in the busy emergency department, a 'bubble in chaos', as he called it (the circle connecting the two on the picture). Albert described this second conversation as challenging, emotionally intense and fulfilling. Albert felt proud of himself and closer to the doctor he wishes to become

thought was to run away. This (pointing to the drawing) is me; I am running away - Running away from the whole situation. I did not want to stay there. I did not know how to talk to him (to the patient), and the supervisors kept saying that I should not talk to him because the patient did not want to know.

The third dimension relates to the conflict between students' current attitudes and moral decisions with the desired/idealised attitudes of the doctor they intend to become. This dimension differs from the second because it does not focus on the present situation, it refers to students' reflections on the impact of the experienced moral dilemmas on their future self-image and identity as graduated doctors. Students feel the urge to incorporate the values of the medical profession and harmonise them with their values, a harmonisation that is crucial for their professional identity development. However, students realise that to become the doctors they once idealised, they must strive to modulate the system, engage in a process of continuous improvement, deal with the hierarchical boundaries and stand up for their values (Table 1).

RP5 (In the situation depicted in RP5, the student was not emotionally able to complete a legal abortion in a young woman who had been the victim of sexual abuse): When I became responsible for this patient, I said, "Wow, I'm going to be a super doctor, I can help, I can control the situation, it's okay!" I said to my colleagues, "I have no problems with that" And then, suddenly, I went to the extreme opposite idea "Not only I do not control the situation, but also I do not know if I fit this job." So, this was something that

**FIGURE 4** 'Vacant Bed' (Rich Picture 4—RP4/ State University of Campinas, 2017-2018): The student (Carlos—fictitious name) drew the story of a patient (Suzanne—fictitious name) who was hospitalised because of abdominal trauma after being assaulted by her husband. It was the fourth time she had been beaten, and this time her gall bladder had to be surgically removed. The student was responsible for the daily evaluation of the patient, a clinical assessment that was reported every morning during the clinical round with the residents and supervisor. The surgery team decided to discharge Suzanne even though the husband was the one who came to pick her up to take her home (the husband is the man behind the door with the knife on the left of the drawing). Carlos tried to convince the team that it would be risky to let Suzanne go with her husband. Still, the supervisor judged her recovery as complete and affirmed that they needed the bed to admit a new patient from the emergency department. Carlos was uncomfortable with the decision and felt that his opinion was worthless—on the drawing, as a powerful metaphor, the supervisor is the bigger figure, and the only one who has a mouth, although he has no ears. The residents and the student (the smallest 'doctor' at the bottom with his evaluation torn) do not have mouths, only ears. Carlos was also shocked by the depersonalisation of the patient—the trauma team referred to the patient by the number of the bed (40XB in the drawing) and not by her name. The title of the picture ('Vacant Bed') refers to the perception of the student that rotating the patients was more important than providing the best care possible

stayed a long time in my head, echoing, "Could I really do that?" "Is medicine a profession for me?" I had a feeling that I did not … Maybe medicine is not the profession for me. Because if I could not make that decision (of performing the abortion), if I could not do what my patient needed, maybe it is not for me.

The fourth dimension of moral dilemmas relates to the conflict between ethical principles that students need to balance during moral decision making. This dimension is the most external and has a normative nature as it relates to the application of ethical norms and principles to clinical decisions. Students struggle to decide what is the ethical principle that should prevail in each one of the challenging situations they face to guarantee patient-centred and socially just care (Table 1).

RP2 (Figure 1): At the same time that we invested every resource in him (the patient), hospital stay, blood transfusions, there were other people who had a better chance to live and needed and wanted that (the resources), but could not have access to it.

## 3.2 | Moral dilemmas are intense emotional experiences with long-lasting components

We divided the emotional responses to moral dilemmas into (a) the emotions aroused during the moral reasoning, and (b) the emotions aroused after the moral decision was made (Table 2—Template 2 and Figure 2).

During the reasoning process, students had emotions related to distress, such as anger, anxiety and freeze, combined or not with different levels of detachment and a 'willingness to run away'.

> RP1 (Figure 2): I tried to show that I felt imprisoned like I was behind bars. I felt as evil as she (the supervisor), do you know? I felt small. I felt very small; I could not look at his (patient's) eyes. I felt like I was locked inside me. I felt like I had a heavyweight over my heart. I felt very bad. I felt like I was bleeding inside, I could not breathe, my lung was blocked, my heart was bleeding and locked too as if it had a weight over it. I could not talk also. [...] And that (pointing to the drawing), the blue puddle, it is because I remember that I was sweating a lot, that I was trembling a lot. I saw myself very negative, very wrong. I saw myself as a trash bag like that, like a piece of shit, an awful thing, as if I was also blindfolded. Then I said to him: "look, the results of the exam are not ready yet, I mean ... my boss said that probably when you come back to the oncology clinic, they will explain to you what is going on". I lied to him, got it?

After the decision, students respond in two different ways. When the moral decision did not align with students' beliefs and morality, they felt mostly negative emotions such as frustration, disgust, shame, solitude and sadness.

> RP1 (Figure 2): I should have been more honest with this guy (the patient), you know? But I could not go back in time. I would like to come back and change things. So, I started feeling like I had a black cloud over me! Crying all the time. I was crying a lot! I could not come back, do you understand?

When the moral decision did align with students' morality, students mainly felt positive emotions such as pride, peace, courage and happiness (Table 2—Template 2 and Figure 3).

> RP3 (Figure 3): I went back home feeling very well about myself because I succeeded in talking to him (the patient). It was awesome. I remember I was successful that day, I do not know exactly how, but I know... The most important moment was when we ended the conversation, one of those moments that you will never forget – I remember it was something like that – he (the patient) said: "This was exactly what I needed, thank you very much."

Medical students' emotional responses are very intense during the dilemmas and were evoked again during the interviews. Several students experienced guilt, shame and anger, and even cried during the interviews. Students thought that drawing and talking about the experiences brought them a feeling of closure, as they could finally find peace. It is worth mentioning that some of the experiences were older than two years when the drawings were made.

## 3.3 | Moral dilemmas influence future behaviour and professional identity development

We identified four components of the students' behavioural responses to moral dilemmas (Table 2—Template 3 and Figure 4). The first behavioural response is immediate and relates to moral distress. Students report detachment, freezing, crying, hiding and searching for support within the team.

> RP1 (Figure 2): So when I came back to talk to him (the patient), I didn't know what I was doing, I was completely offline, I could not center myself again! It was like I was out of myself. Then, I remember that I was behind that table, which, for me, means that I was distant... and I was looking at this door behind him, only wishing to run away, you know?

The second response occurs during the process of moral reasoning. Some moral dilemmas happen in hours; others can take days or even weeks, depending on the nature of the clinical problem and the urge to make the moral decision. In this context, students reflect on the best strategies to deal with the situation at hand. Avoiding the situation, detaching and following the rules conflict with defending their values, standing for their opinions, adopting a patient-centred attitude and fighting the system.

> RP4 (Figure 4): I didn't know if I would have a big fight with the team or if I would stay quiet since I'm just a student.

> RP9 (In the situation depicted in RP9, the student communicated to the patient a therapeutic decision of the supervisor with whom the student did not agree): When I was talking to her (the patient), I felt like agreeing with her that the plan did not make any sense. I wanted to stand with her against the decision that was made (by the supervisor). That was what I felt, but I could not do that. I had to support the opposite side, even though I did not agree with it.

The third response happens after the moral dilemma ends and relates to the anticipation and planning of future behaviour if similar situations arise again during their training. This third response is a process of meaning-making that helps students to reconcile their behaviour with their moral beliefs and values.

> RP4 (Figure 4): I put myself in the place of the supervisor. Soon I will be the one responsible for making the

decisions. I need to learn to listen to people. I need to trust the person who evaluates the patient every day.

The fourth and last response is related to a reflection on the process of professional identity development. Students try to figure out how these moral dilemmas will inform their future professional behaviour—taking into consideration the whole idea of becoming a doctor.

RP4 (Figure 4): I think we are responsible not only for the disease of the patient but also for understanding the whole context of the life of the person. I think we should not simply stabilize the patient, knowing that there are so many things at stake.

# 4 | DISCUSSION

The first insight provided by our study is that indeed the development of a medical morality goes beyond the internalisation of values and behaviours. In the process of becoming a doctor, medical students aim to be accepted as part of the team and allowed to engage in clinical care. Still, they experience a tension between the values of the medical profession and the workplace culture.[27] Particularly in the context of moral dilemmas, medical students often feel like they are betraying their patients and themselves and risking their integrity and dignity. Consequently, they feel frustrated, demotivated, detached and alienated.

The second insight is that students need support during their moral development, which is indissociable from developing a medical identity. The ancient Greeks understood moral development as growth in virtue. Aristotle claimed that the virtuous person is the one capable of transforming the disposition to do good into a virtuous action,[15,54] which demands a specific kind of wisdom and courage. Ancient Greek philosophers called this practical wisdom *phronesis*, which is the ability to align behaviours and attitudes with moral values.[55] Greek philosophers considered reaching *phronesis* a crucial component of 'living a good life'. Following this line of thought, living a good professional life or developing good medical professionalism relies on reaching a *'professional phronesis'*; that is, doctors should develop the capacity to apply the values of the medical profession wisely while solving clinical problems and interacting with patients, families and colleagues.[25] Furthermore, the medical literature has shown the need for pedagogical practices to discuss, address, support and prepare medical students to develop the necessary moral courage to reach this *'professional phronesis'*.[56,57] Otherwise, students feel trapped between the idealised view of medical training and the reality of clinical care, which can be emotionally exhausting.[58-61]

In fact, students' negative emotional reactions were so intense that they wanted to escape from the situations, hide and suppress their emotions. When talking about the dilemmas, students cried, hit the table and spoke aloud, showing that the emotional reactions had a remarkable residual effect. This lengthened period of emotional responses associated with this strong residual effect may indicate that students often lack a sense of closure and fail to cope with and make sense of the moral dilemmas.[62] This lack of closure may lead students to avoid new similar clinical experiences, which may hamper their professional development by preventing them from living and learning from the situations with which they struggle the most.[63]

By contrast, medical students also manifested positive emotions, especially when they found the moral courage to stand and fight for their values or when, at least, they were able to reflect on the experiences and learn from then. The positive emotions such as pride and happiness brought a strong sense of professional fulfilment, which stimulated students to engage with subsequent clinical experiences. Our data suggest that these positive emotions are related to higher levels of engagement in clinical care and function as a positive reinforcement for professional development.[64]

## 4.1 | Practical implications

A critical question for medical educators is: How could we transform moral dilemmas into meaningful learning experiences? We believe that, first, medical educators, especially clinical teachers, should acknowledge the complexity and ambiguity of these experiences and welcome students' emotional responses into a safe, open and horizontal dialogue.

Second, it is essential to search for role models with a consolidated professional identity who are capable of aligning personal and professional identities under the same moral umbrella. Role models who, nurtured by a repertoire of previous experiences, can cope, signify and deal with the emotions aroused when facing moral dilemmas.[65] Role models capable of respecting students and opening a communication channel for students to share their traumatic experiences.[66] If such role models are not available in the clinical rotations, we advocate for the creation of mentoring groups dedicated to discussing moral dilemmas under the guidance of facilitators with regulatory powers,[28] that is facilitators with the prerogative of advocating for the students, empowered to intervene when students feel distressed or harassed. This regulatory power may be essential to protect students from harmful experiences that could negatively impact their professional development.

Third, we believe students would benefit from continuous cycles of facilitated reflection and supportive feedback during moral decision making. The reflection should start with unveiling the dimensions present in a dilemma and searching for the latent conflicts that will ask for moral courage to be dealt with and solved. Senior doctors acting as facilitators could nurture students' moral courage by reinforcing the legitimacy of students' views when these views match the values of good medical practice.[66] When students' perspectives conflict with the desirable medical morality, senior doctors could engage in a horizontal dialogue, helping students to understand the possible flaws in their moral reasoning. When dealing with the contradictory, senior doctors need to police themselves to avoid being judgemental and authoritarian, which could harden the internal conflicts of students.[67] In extremely conflicting cases, medical students could ask

senior doctors to join in the decision-making process and directly interact with other professionals to alleviate the burden on students.

Also, reflection cycles could offer students an opportunity to both find emotional closure and seize the positive aspects of the experience. In a safe and constructive environment, students can handle the anger, guilt and frustration arisen from moral dilemmas and transform the initially avoiding/freezing attitude into the necessary moral courage to fight for their patients' interests.[68] Even when students fail to behave accordingly to their beliefs, guided reflection may reframe the frustrating experiences, soften the burden of feeling guilty or ashamed, and prepare students for engaging in the next cases. Finally, these reflection cycles would help students to further their learning beyond finding the 'right' moral decision by creating awareness about themselves, their values, beliefs and emotions.[69] In summary, these cycles would help students discover and enact who they are and will be as doctors, facilitating the integration of both identities, personal and professional, into a meaningful whole.

Moral dilemmas bring opportunities to discuss the intersection between students' personal and professional development. Supporting students to deal with moral dilemmas involves acknowledging the legitimacy of students' values and engaging in a meaningful conversation about how to align these personal values with the emerging professional identity—an identity that needs to honour the social contract of medicine while staying faithful to students' personalities.[70] Senior doctors could bring their relevant experiences, especially the ones that had unfavourable outcomes, but ended up being transformed into meaningful learning experiences.[71] Understanding how senior doctors dealt with these situations and the related anxiety and suffering may prompt students' insights on how they will develop a similar competence in the context of their personalities and clinical experiences.[67]

Embodying the emotions in the learning activities means creating opportunities for students to identify and express their emotions openly and safely, without feeling judged or awkward.[68] The facilitators may take advantage of this safe space to legitimate students' emotional reactions, which may be the first step for them to modulate and integrate these emotions into their professional identity and clinical practice.[64,72,73] Again, senior doctors can share with students their strategies for regulating emotions, which can be insightful for both seniors and novices.[27]

After sharing and reflecting on the experiences, students need to engage in the process of meaning-making. Making sense of moral dilemmas depends upon understanding how this experience will influence the next professional choices and attitudes. In the short run, it is essential to keep students engaged in clinical activities and prevent detachment. We believe that the supportive activities described in the previous paragraphs can help with this challenge. However, facing a moral dilemma can become a moment of doubt regarding becoming a doctor. Also, moral dilemmas may influence specialty choice as some dilemmas are more prevalent in certain specialties (for instance, performing an abortion, a common dilemma for obstetricians, or limiting treatment at the end of life, a common dilemma for intensivists). Students can feel lost, and their sense of belonging to the medical community can decrease after such experiences. At the same time, these doubts are essential and constitutive elements of a conscious and informed choice about the future specialty. Senior doctors can also give legitimacy to these doubts by sharing similar experiences from their trajectory. Having the opportunity to recognise the same insecurities on their role models´ paths can be reassuring and provide a motivational boost.

In summary, pedagogical activities to prepare students to deal with moral dilemmas should rely on the anticipation of these dilemmas followed by reflective moments that should occur in a safe environment, under the guidance of a skilful non-judgemental facilitator—a facilitator capable of listening and giving legitimacy to students' thoughts and feelings while providing insights to nurture their future professional development.

## 4.2 | Limitations

Our research has significant limitations. First, the value of expressing and dealing with emotions is under the influence of culture. In Brazilian culture, emotions are embraced as a natural and often welcome asset of good communication. Possibly, the emotional reactions would be expressed differently in other contexts. Second, in the Brazilian medical education context, medical students' transition to independent practice occurs abruptly and earlier in the medical course than in North-American and European medical schools. Perhaps, in contexts where the transition to practice is more gradual, students face similar dilemmas but in a stage when they are more mature and prepared to handle them. Third, moral values and their applications are also culturally dependent, which influences the generalisability of our findings. Fourth, although we explored the impact of moral dilemmas on students' professional development, we did not follow our subjects longitudinally, which would possibly provide different data and insights. For instance, longitudinal data could help us deepen our understanding of medical students' coping mechanisms and explore how emotional reactions evolve and influence students' well-being. Fifth, although the Rich Picture method is gaining popularity and rigour, there are still challenges related to finding the best way to analyse the drawings.[46] However, the quality of the data obtained in this study speaks in favour of using this methodology to enrich interviews when dealing with sensitive subjects. Finally, we translated the interviews from Portuguese to English to allow researchers with different cultural backgrounds to engage in data interpretation, broadening our perspectives. However, during the translation, nuances and meanings can be lost, preventing a full comprehension of participants' perspectives. We minimised this impact by having frequent 'reading-together' sections with the non-Portuguese speakers of our research group.[74]

## 5 | CONCLUSION

Medical students' moral dilemmas at the onset of clinical practice are memorable, multidimensional and emotionally intense

experiences that impact students' professional and moral development. Understanding these experiences can help educators to devise pedagogical strategies to support students during the process of becoming a doctor.

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## APPENDIX 1

### DESCRIPTION OF MORAL DILEMMAS FOR STUDENTS

'Every day, we are confronted with problems. Often, we must decide about issues that involve and interfere with our freedom of choice and with the freedom of others. Our decisions balance between the need to follow the norms and the willingness to follow and act according to values (ideals) that we impose on ourselves; values that we also expect to be followed by others, or at least, that others will also accept. Thus, some situations bring deep doubts and uncertainties about the best option to take, and sometimes any of the options seem satisfactory, but at the same time, we feel the urge to choose the best one'.

### INTERVIEW STRUCTURE

In the first step, students told the story behind the drawing without interruptions. In the second step, students described the picture, and DLR actively explored the drawing elements, such as the characters, use of space, relationships, metaphors, symbols, possible hidden meanings, and the utilisation of colours. In the third step, students explained in detail the nature of the moral dilemmas experienced, their emotional responses, and the perceived impact of the narrated experiences on their future professional development. DLR used the following questions as a flexible guide in this step: (a) What was the moral dilemma that you experienced and represented in this picture? (b) How do/did you feel about this experience? (c) How does/did this experience influence your professional life? The guide did not prevent the interview to 'go with the flow', and further topics were explored depending on students' answers. In the fourth step, students reflected on the drawing experience and interview. Finally, in the fifth step, to close the conversation and to ensure that no details were missing, DLR summarised the interview aloud and asked whether the students wanted to add more information or insights. After each one of the sessions, the senior author (MAC-F) listened to the recorded interviews and discussed with DLR its process to further develop the interview strategy.