Emotional challenges of medical students generate feelings of uncertainty

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OBJECTIVES Health care students face many situations during their education that might be emotionally challenging. Students are confronted with illness, suffering, death, patient treatment dilemmas, and witnessing unprofessional behaviour on the part of health care professionals. Few studies have focused on what these experiences lead to in relation to the process of becoming a professional. The purpose of the study was to explore medical students’ main concerns relating to emotionally challenging situations during their medical education.

METHODS A constructivist grounded theory approach was used to explore and analyse medical students’ experiences. Data were gathered by means of focus group interviews, including two interviews in the middle and two interviews at the end of the students’ undergraduate programme. A total of 14 medical students participated.

RESULTS Students’ main concerns relating to emotionally challenging situations were feelings of uncertainty. These feelings of uncertainty concerned: (i) insufficient knowledge and skills; (ii) the struggle to manage emotions in patient encounters; (iii) perceived negative culture and values amongst health care professionals and in the health care system, and (iv) lacking a self-evident position on the health care team. The first two aspects relate to uncertainties concerning their own capabilities and the other two aspects relate to uncertainties regarding the detached medical culture and the unclear expectations of them as students in the health care team.

CONCLUSIONS In the process of becoming a physician, students develop their professional identity in constant negotiation with their own perceptions, values and norms and what they experience in the local clinical context in which they participate during workplace education. The two dimensions that students have to resolve during this process concern the questions: Do I have what it takes? Do I want to belong to this medical culture? Until these struggles are resolved, students are likely to experience worry about their future professional role.

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INTRODUCTION

Learning to become a physician is a multidimensional process involving the development of medical knowledge, skills and attitudes and the formation of a professional identity, in which research findings suggest that emotions play an important role. Although socialisation into the medical profession seems to start early in medical education, the clinical environment is most likely to be the most influential learning environment in becoming a physician. Various situations that nursing and medical students find emotionally challenging have been described in the literature. Taken together, the research literature points to situations related to students’ experiences in patient encounters and of the medical culture, including interactions with health care professionals. Difficult situations relating to patient encounters include, for instance: being confronted with illness, suffering and death; perceiving dilemmas regarding patient treatment; and having feelings of unease when using patients for their own learning. Difficult situations relating to experiences of the medical culture include students’ dilemmas when witnessing unprofessional behaviour by health care professionals; that is, risking patient safety or compromising patient dignity, having a detached or even arrogant attitude, and engaging in abuse or discrimination directed towards students.

Health care students clearly encounter many challenges during their education. Studies suggest that students often are left alone with their experiences and feelings,\(^2,4\) and that they might be reluctant to disclose their discomfort out of fear of being viewed as weak.\(^23\) However, when students do talk, they seem to prefer to talk to someone they trust, such as a peer or a family member.\(^16,24\) Although the literature describes situations that students find emotionally challenging, we do not know enough about the effects these experiences have on students’ learning and the process of becoming a professional. However, in a recent study, researchers explored how first-year medical students dealt with emotions in early clinical placements.\(^25\) It was found that the emotional experiences often created tensions between students’ thoughts and emotions in the situation and what they felt was required of them. Factors in the workplace and personal attributes influenced how each student dealt with their emotions, and as a consequence, what they learned from the experience. The present study explores this further by focusing on students from the middle and the end of their undergraduate medical programme, when they have had more experiences in the clinical environment.

The present study is conducted in Sweden. Recently, several reports raise concerns regarding the work environment and the high psychological and emotional strains that Swedish physicians experience.\(^26,27\) Moreover, mental illnesses such as depression and burnout are the main reasons for long absence from work for Swedish physicians and the problem is increasing.\(^28\) Thus, the clinical environment medical students encounter is challenging in many ways. There are indications that experiences of stress-related symptoms during medical school may be related to exhaustion during their first year as junior doctors.\(^29\) These findings suggest that challenges students experience and how these affect them is of importance for their future professional life. There are today only a few studies exploring Swedish students’ situations during their clinical placements in medical school and the emotional demands that they have to manage.\(^2,16,30\) Given the situation of increasing psychological and emotional demands on health care professionals in Sweden, we need to know more about how students experience the emotionally challenging situations they face during their clinical placements and how these experiences affect them.

Learning to become a physician is in this study viewed as a social process where students interact with patients and health care professionals and continuously negotiate and co-construct what it means to become a physician.\(^31,32\) Learning to become a physician involves participating in the local clinical practice, and ‘through participation, active engagement and assuming increasing responsibility, the individual assumes and acquires the roles, skills, norms and values of the culture and community’.\(^33\) Role models, both positive and negative, as well as patient encounters, have a major influence on students’ understanding of what it means to be a physician.\(^34\) Role models also influence how students learn about how to manage emotional challenges\(^10\) and the meaning given to emotions in the particular clinical environment.\(^35\)

As suggested by sociocultural theories, learning and becoming a professional are highly contextualised,
and consequently emotionally difficult situations might have a strong influence on students’ processes of becoming a health care professional. Within a grounded theory research design, 36,37 and drawing on the concept of *becoming a professional*,31 the purpose of this study was to explore Swedish medical students’ main concerns regarding their experiences of emotionally challenging situations during their medical education and what these experiences lead to. In line with a grounded theory approach, we tried to understand what was going on from the point of view of the participants involved.36–38 As Glaser puts it, ‘this understanding revolves around the main concern of the participants whose behavior continually resolves their main concern’.37 Participants’ *main concern* ‘highlights the issue or problem that occupies much of the action and attention in the research setting’.39 Their main concern refers to their perception of and preoccupation with the relevant problem they have to deal with, and evokes their continual processing and resolving of it. It is, according to Glaser, the prime mover of their actions in the situations of the study.37,38 He also argues that regardless of being aware or not of their main concern (they might be so busy resolving it), the participants have typically not conceptualised it,37 which has to be done to better understand and theorise about what is going on, and in a way that could be recognised by and considered relevant to those in the substantive field.37,38

**METHODS**

**The context of the study**

The study was conducted at a Swedish medical school. The Swedish medical curriculum entails 5.5 years (11 terms) of undergraduate education, including both pre-clinical and clinical courses. The curriculum of the first term is predominantly pre-clinical. However, already from the first term students also spend time in outpatient care and are introduced to the clinical environment through various activities. Clinical medicine is taught in the fifth and sixth terms, and this is the point where the students are introduced more thoroughly to clinical training, and from this point forward students mainly have clinical courses. Furthermore, integrated into the curriculum is a course module or thread, spread over all terms, focusing on professional development. In this module, students, through activities such as reflection seminars, mentorship meetings and written reflections, are supported in developing professionalism, ethics and empathy in order to be prepared for their future professional role.

**Study design and participants**

In order to capture medical students’ experiences of emotionally challenging situations during their undergraduate education, a constructivist grounded theory approach was used in this study.36 This version of grounded theory acknowledges that data are constructed in interaction between researchers and informants and that both data collection and analysis are influenced by the researchers’ prior knowledge and experiences and the sociocultural context in which the study is performed.40 Grounded theory is suitable for studying social processes and actions in a particular social setting, which in this study were the students’ experiences of emotionally challenging situations during their work placements and what these experiences might lead to. In line with constructivist grounded theory, we viewed the analytical methods and strategies of grounded theory as flexible guidelines,36 enabling us to openly explore and be sensitive to the data.

The study population consisted of medical students in the middle and at the end of their studies (the sixth and tenth terms, respectively). The reason for this was to include students relatively new to the clinical environment as well as students with more experiences in order to capture a wider variety of experiences. We contacted 20 students in term six and 20 in term ten for focus group interviews. A purposive sample was used, and the students were selected based on gender and age to achieve an even distribution of gender and a broad distribution of age. The students were contacted by e-mail. In total, 14 students chose to participate, of whom seven were women and seven were men, with ages ranging from 23 to 43 years. The group of 14 students did not differ regarding age and gender compared to the 40 who were originally contacted; thus, we achieved the breadth in informants we sought. Eight students were recruited from the sixth term and six students from the tenth, resulting in two groups from the sixth term (four students each) and two groups from the tenth term (three students each). Both men and women were represented in each group.

**Data collection**

Data were collected by focus group interviews, which are an efficient and flexible method to
Focus group interviews allow the participants to interact (i.e. to explain things to each other and to share their experiences). The students were asked open-ended questions about their experiences of emotionally challenging situations, such as what kind of situations they had experienced as emotionally challenging, what kind of support they had obtained, and what they had learned from these experiences. The interviews lasted from 55 to 75 minutes and were audiorecorded and transcribed verbatim. The interviews were held and transcribed in Swedish, but the quotes used to illustrate the findings in the present paper were translated to English. The names of the students used in the paper are fictitious.

The researchers conducting this study followed ethical guidelines concerning research involving humans. Ethical approval for this study was granted from the Regional Ethical Board in Stockholm prior to data collection. It was voluntary for the students to participate, and the students were informed both orally and in writing about the purpose of the study, how the interview data would be treated, and their rights as participants. Written consent was obtained from all of the students prior to data collection.

**Data analysis**

We read the transcribed interviews, navigating closely to the data, in order to identify what kinds of situations the students found to be emotionally challenging and how they experienced these situations. The transcripts were read several times, first to familiarise ourselves with the data and later to code the data. Coding was conducted in several phases using initial and focused coding. The coding was carried out iteratively, going back and forth between initial and focused coding. Initially, coding was carried out close to the data (i.e. word by word or sentence by sentence). The codes that were constructed were compared with the data and with each other, and similar codes were grouped. In the next phase, focused coding was conducted. The most significant initial codes were used as a focus in this stage, allowing for a more selective and conceptual coding procedure. Throughout the analytical process, the codes were discussed amongst the research team. The constructed categories were revised, and the analysis continued until no new discoveries in the data were made (i.e. saturation was reached). At a later stage during the analysis, the conceptual framework of communities of practice, especially the concepts of identity and community, was used to inform and illuminate the analysis to further theorise the findings. The research team conducting this study was multiprofessional and consisted of senior medical consultants with experience of teaching and research in medical education (AL, AS and AW) and educational researchers with experiences of teaching and research in various contexts (MW, HH and RT). This enabled the researchers to explore both inside and outside perspectives during the analysis process.

**RESULTS**

The analysis showed that there were certain repeated events and situations that medical students perceived as being distressful and that evoked negative feelings. Such events or situations were related to witnessing patients’ suffering, the student’s own physiological reactions in physically and psychologically demanding situations, identifying with the patient, fear of injuring the patient, meeting the demanding patient, meeting negative role models and the detached health care culture, supervisor’s lack of commitment, and always being ‘new at work’. The distressful situations were thus related to the students’ encounters with the clinical environment and their encounters with health care professionals and patients during their workplace rotations.

**Uncertainty in the process of becoming a physician**

The students’ main concerns relating to these distressful situations were feelings of uncertainty, including uncertainty about having obtained the knowledge and skills needed in practical clinical work, uncertainty about how to maintain a professional approach towards the patient in psychologically challenging situations, uncertainty concerning their role as a student in the professional medical team, and uncertainty in how to relate to the current values in the health care system. The analysis did not imply that all distressful situations led to feelings of uncertainty for all students, but the results showed that feelings of uncertainty seemed to emerge when students did not know how to handle the distressful events or situations or how to handle their own reactions. Below, the different ‘uncertainties’ students experienced are described in more detail and are illustrated with quotes.
Feeling of insufficient knowledge and skills

A recurrent concern amongst students was not having sufficient knowledge and skills. The students felt uncertain as to whether they had obtained sufficient knowledge, and they feared that their lack of expertise would jeopardise patients’ health. Max described a situation in which he had exposed a patient to unnecessary pain due to what he thought was his incompetence. Although he was at first concentrating on the task, he was later struck by the fact that he had caused the patient pain.

It was the first time I did a lumbar puncture . . . I tried and tried and tried, and she [the patient] screamed in pain . . . After trying three times, I just said, “No, I will not torment you anymore”. As soon as I dropped the needle my blood sugar level dropped and I almost fainted, thinking “My God, she’s in pain”. (Max, focus group interview 4, tenth semester)

The fear of having insufficient knowledge leading to a missed diagnosis and, as a consequence, prolonged suffering for the patient was discussed by Babak.

It’s impossible to remember every detail, but knowing that one day you may miss a critical detail in order to make a correct diagnosis, and that will delay the whole process of correct medical care. That will mean prolonged suffering for the patient . . . The feeling that one day it could be me who makes these mistakes and misses a diagnosis. (Babak, focus group interview 1, sixth semester)

Max sensed he had not obtained enough knowledge to be a safe physician and he was afraid of making crucial mistakes.

I think I have a lot of islands of knowledge. We had this exam in semester five or six, where we were asked about drugs. I mixed them up. They sounded alike but were very inappropriate for certain patients. I answered one of them, but that was life threatening to give in that situation. And that’s something I’m afraid of. To mix things up and as a consequence do something dangerous. (Max, focus group interview 4, tenth semester)

The students’ feelings of insufficient knowledge and skills made them uncertain of their own medical ability and they feared that this would affect their patients negatively. This uncertainty over insufficient knowledge and skills was related to both their present situation as medical students and their future professional role.

The struggle to manage emotions in patient encounters

In patient encounters, students sometimes found it difficult to manage their own emotions. These situations could be experienced as physically or emotionally demanding. Uncertainty emerged relating to expectations about ‘holding themselves together’; that is, students managing their own emotions and reactions, while trying to find a professional approach. This could be when delivering bad news to a patient.

Carl talked about the fear of the reaction of the receiver when delivering bad news and his uncertainty in how to acquire the competence needed.

I am thinking about informing the relatives when a patient has died. It’s difficult to search for how to do that on YouTube. I also think you are afraid of how the person will react. (Carl, focus group interview 2, sixth semester)

Meeting the discontented and demanding patient was experienced as being frustrating and distressful. This challenged the students’ ability to maintain their professional role and their idealistic values. Therese and Thomas discussed their feelings about meeting these patients, their perceived lack of efficient ‘tools’ (knowledge and skills) for approaching them, and their uncertainty about how to find their way of dealing with the problem.

I’ve thought a lot about these patients that I don’t like. That no one likes. That you study this program and you believe that you will do a good job in the end, in a way you’re a bit idealistic, and then somewhere along the way you realize that you can’t make everyone happy . . . (Therese, focus group interview 3, tenth semester)

. . . To me they [demanding patients] are really annoying and I don’t think it’s fun. I always feel a bit bad about being provoked by them. They are difficult.” (Thomas, focus group interview 3, tenth semester)
Another aspect of difficulties relating to managing emotions in a patient encounter was when students could identify themselves with the patient. This tended to go straight through ‘the filter’, a kind of layer students had developed to cope, and the students struggled to find a balance between closeness and distance towards the patient. This was illustrated by Sophie’s experience at the emergency unit where she observed a seriously ill man being treated.

I remember a young man suffering from cardiac arrest or something. He was going to be transported, and when they put him on the transport bed one could see that on his socks it read “World’s best dad”. I was nearly breaking down when I saw that … And I was thinking about that, even though it was such a small thing. It became more real. He’s a dad. He has children, and now perhaps they will not have a father tomorrow. (Sophie, focus group interview 3, tenth semester)

When taking care of and participating in the treatment of patients, students sometimes experienced repellent feelings that triggered a physical response. This could affect their self-confidence, leaving them with a feeling of uncertainty as to whether they had what was required of them. Nina talked about how she felt and reacted after having fainted during her workplace rotation.

I have rather low blood pressure and managed to faint on two occasions before the surgery placement. … This can easily become shameful. That you’re weak or something. (Nina, focus group interview 4, tenth semester)

**Perceived negative culture and values in health care**

The students reported experiences of what they perceived as an insensitive and emotionally detached culture amongst health care professionals and that the common attitude was that physicians and thus medical students are expected to endure anything. Students gave examples from the surgical and paediatric courses, in which pictures of severely injured patients were shown. The pictures were displayed without warning, which left the students unable to prepare themselves mentally for what was coming. This resulted in a negative learning experience and evoked feelings of uncertainty about whether their reaction was acceptable or not in relation to being a health care professional.

It was so visually described and it felt a bit like, “yes, you’re medical students and you should be able to deal with this by now”. But it was such brutal descriptions, descriptions of what people do, especially to children. I felt that it was horrible. And it was not put into context. (Therese, focus group interview 3, tenth semester)

Another aspect of perceived negative culture and values amongst health care professionals connected to uncertainty was when the detached health care culture caused a conflict with the students’ own humanistic values. Maria illustrated this conflict when describing a situation on the ward where a patient’s medical condition became critical and she was observing how the medical team handled the situation, which deviated from her own human values. She saw lack of experience (being a novice) as a factor to take into account when feeling it was ethically wrong to treat the patient the way the nurses did. She was not sure of what to expect and if she should have said something to the nurses about their behaviour.

She [the patient] has a really high heart rate and is gasping for air. She’s panicking. The nurses are talking over her head … “No, now I think we need to call the daughter”. They’re suggesting that this will not end well … They had such a strange attitude to what you should do for the patient … They thought they had worked with this for so long and knew what will happen. It’s so disrespectful to talk like that in front of the patient. (Maria, focus group interview 3, sixth semester)

Another student, Susanna, described a situation where she felt the health care system failed to do what was best for the patient. This concerned a patient who had lost his ability to swallow after having a severe stroke and who was undergoing a surgical procedure where a percutaneous endoscopic gastrostomy would be performed in order to prolong his life. The health care professionals were against it, but his relatives thought that he would survive and insisted. Susanna experienced this as being a distressful situation, causing her to think about how she was going to be a part of a system that could fail by not always doing what is in the best interest of the patient.

What’s related to diseases is so much easier to manage compared to when you think mistakes in the healthcare of patients have been made … It’s
more of a system failure, and that’s much harder
to deal with. Yes, you feel bad about that,
because these mistakes are made in the
healthcare system YOU will be working in. (Susanna, focus group interview 1, sixth semester)

The uncertainty she felt related to this event concerned whether she could be a part of a system causing such mistakes.

Not having a self-evident position in the health care team

To take an active role in patient-related work on the ward is a large part of the process of becoming a physician. Difficulty in becoming a member of the medical team (being excluded) was felt to be distressful and nourished a feeling of uncertainty regarding what was expected of the students. Were they supposed to take an active part or remain passive observers who stayed away so that the medical team would be able to do their work without disturbances? Rikard described a situation illustrating exclusion when a patient with cardiac arrest was treated in the emergency room.

A patient with cardiac arrest came in to the emergency room, and there is a dedicated area in the room where students are allowed to stand ... like an observation spot. We were standing there, waiting, ready when the ambulance came in, but then we were thrown out of the room ... It is the head nurse who decides. You are not really part of the team, as a student ... you are supposed to know your place. (Rikard, focus group interview 2, sixth semester)

Students expressed fear of making the work harder for the medical team and taking focus away from treating the patient due to their need to be supervised. Thomas talked about not knowing what was expected of him, and he expressed thoughts about being in the way.

It’s this about “me being in their way”. Should I help or should I not? ... Do they want me to actively participate or not? You really don’t know ... And that’s really difficult. Sometimes you feel like a burden. (Thomas, focus group interview 3, tenth semester)

Students’ short placements, often not more than a week on each ward, contributed to the difficulties in taking a natural part in the medical team. Changing supervisors and having to adapt to new environments each week and not knowing what to expect was seen as distressful. Susanna talked about how this affected her, and she described it as being energy draining.

You’re being pushed around to different wards once a week, and you’re supposed to try to become friends with your supervisor ... Show who you are and what you can do. That takes a lot of energy. (Susanna, focus group interview 1, sixth semester)

Students also discussed the uncertainty they felt about starting work and leaving the role of a medical student. Thomas discussed how he did not really know what he could expect when working as a physician. He was nervous and worried.

I’m nervous about this summer job. Because I don’t really know what it means. All of a sudden you’re not supposed to be that shadow anymore, but to step forward and take on responsibility. Manage rounds without having someone to ask. And I’m very unsure how I will manage that ... this feeling of uncertainty of how it will be. (Thomas, focus group interview 3, tenth semester)

The experience of not having a self-evident position in the health care team seemed to make students unsure of their role as students and also what was expected of them in their future professional role.

Uncertainty in the process of becoming a physician: a model

When medical students participate in clinical practice, they sometimes experience situations that are emotionally challenging and distressing. Our analysis suggests that these experiences may lead to feelings of uncertainty. Four aspects of uncertainty were found: feelings of insufficient knowledge and skills; struggling to manage emotions in patient encounters; perceived negative culture and values in health care; and lacking a self-evident position in the health care team. The first two aspects relate to the question: Do I have what it takes to become a physician? The uncertainties students experience concern their capabilities and fears of not living up to their own and others’ expectations. The other two aspects concern the question: Do I want to belong to this medical culture and health care system? The uncertainties students express relate to the detached medical culture and the unclear expectations of them as students in the health care
team. In the process of becoming a physician, students develop their professional identity in constant negotiation with their own perceptions, values and norms and what they experience in the local clinical context in which they participate during workplace education. The two dimensions that students have to resolve during this process are: Do I have what it takes? Do I want to belong to this medical culture? Until these questions or struggles are resolved, students are likely to experience worry about their future professional role.

DISCUSSION

In this study, we explored medical students’ experiences of emotionally challenging situations in the context of Swedish health care. In summary, our analysis suggests that medical students struggle with feelings of uncertainty in the process of becoming a physician. Uncertainty emerged from various distressful situations during their workplace education, and this uncertainty was in relation to the health care culture, to the patients, and to the students’ perceptions of whether they had what it takes to become a physician.

One aspect of uncertainty was the struggle to manage emotions, both their own and the patients’ (i.e. the struggle to balance emotional distance and closeness in patient encounters). Students found it hard to manage emotions in situations such as delivering bad news, or when students identified themselves with the patient. Sometimes students reacted physically, and this caused uncertainty as to whether they had what it takes to become a physician. Students also felt uncertain about whether they had sufficient knowledge and skills, and this resulted in fear of jeopardising patients’ health or even harming patients. Our findings are in agreement with previous studies, thus contributing to the strong picture that medical students experience a range of difficult emotional situations during their education.¹,²,⁴,⁵,⁸–¹²,¹⁶ Medical practice involves emotions, and medical and health care students need to learn how to manage their own and other’s emotions, as well as feelings of uncertainty and inadequacy. Our findings point to the feelings of uncertainty these difficult emotional situations might lead to. This is a complementary finding to those of a study of first-year students, where the emotional experiences led to mostly positive outcomes such as increased empathy or confidence, and in some cases resulted in detachment or increased cynicism.²⁵ The struggle to manage emotions seems mainly to be left to the students to figure out by themselves.²,⁴,¹⁶ This was also apparent in our study, where students seldom mentioned reassurance or confirmation from clinical supervisors that their feelings of uncertainty are common as they learn to become professionals. Medical students’ feelings of uncertainty have previously been described,⁴⁵ but our findings suggest that these feelings may arise from emotionally challenging situations that students often have to manage by themselves.

The uncertainty about emotional aspects and doubt about whether they had sufficient knowledge and skills, as expressed by the students in our study, tended to be directed towards their future professional role and seemed to cause worry. This worry was expressed by students both in the middle and at the end of their education. It seems that the students carry this worry with them during medical school and most likely into their first position as a physician. Even though it is not possible for students to avoid emotionally challenging situations during medical education, if these feelings are not dealt with, they might cause worry and doubt about their capabilities and future professional role. In line with our findings, students have been found to experience doubt about whether they want to become or are capable of becoming a physician.⁴⁶ This suggests that the dimension of uncertainties relating to their own capabilities is a common part of medical students’ process of becoming a professional. Medical practice involves uncertainty in other aspects than those previously discussed in this paper; the uncertainty, including the risk of diagnostic errors, in medical decision making is well known.⁴⁵ Uncertainty in medical work may contribute to students’ feelings of uncertainty and doubt regarding their capabilities, and may be an aspect that underpins students’ experiences in this study.

Being a student was experienced as not having a self-evident position in the health care team. Students were uncertain of what was expected of them, and the short clinical placements made it difficult to become a part of the team. Students also described it as energy draining, and this may influence their education negatively because it has been shown that being included in the medical team, being allowed to participate and feeling that they belong are important for students’ learning in clinical environments.⁶,⁴⁷–⁴⁹ One reason why students do not feel confident in sharing experiences of emotional difficulties and feelings of
uncertainty with their supervisors might be the short placements. If students do not feel a part of the team, and the time to develop trusting relationships with their supervisors is short, the students might be reluctant to disclose their personal feelings and struggles. In recent years, various attempts to introduce longitudinal clinical placements to promote continuity have been described.50

Our findings also point to the perceived negative, often detached, culture and values amongst health care professionals and the health care system and how this made students feel uncertain about their future profession. They were unsure about whether their reactions were acceptable or if they could be, or even wanted to be, part of a system that was detached and sometimes failed to do what was the best for the patients. These findings correspond to research reporting on students witnessing unprofessional behaviour amongst health care professionals,12,16,22 students’ perceptions of the medical learning environment, and the hidden curriculum.17,25,51 Students must relate to this culture with its norms and values, which might contradict their own values, either by adapting or holding on to their ideals. Learning to become a professional is a social process, and the health care culture with its norms and values, as students perceive them, influences this process in a profound way.31,32 When unprofessional behaviour is tolerated and emotions are ignored, students or junior doctors might lose their idealism and risk emotional exhaustion and burnout.52 In the light of the current working environment reported in Swedish health care,26–28 and the findings that students’ experiences during medical school may be related to exhaustion during their first year as a junior doctor,29 it is important to provide better support for students’ professional learning during medical school. Several strategies have been proposed to promote this, including facilitating active reflection amongst students through the use of portfolios or written texts and helping students develop skills in self-care.53–55 It is worth noting that the students in our study were offered reflective seminars to discuss various matters regarding becoming a professional as part of the professional development module of the curriculum. Although these seminars are important, our findings suggest that these seminars are not enough to support their struggles in managing emotionally challenging experiences and the uncertainties in the process of becoming a physician. Our findings suggest that medical and health care students need to learn how to develop strategies for how to relate to a health care culture with norms and values that might contradict their own.

Our findings suggest that during the process of becoming a professional, students may experience uncertainty relating to two dimensions: (i) their own capabilities, and (ii) the sometimes detached medical culture and health care system under strain. Even though this study was conducted in a Swedish context, we argue that our findings of students’ struggles relating to these two domains as part of their process of becoming a professional are relevant also in other contexts. Our findings suggest that the process of becoming a professional is a complex process, where developing an identity as a physician and a sense of belonging to the medical culture is sometimes more difficult than suggested by the literature on developing professional identity21,56 and socialisation into a community of practice.32,58 Our findings illuminate the dual nature of the process of becoming a professional; it relates both to the development of a professional identity and to the socialisation into a professional community of practice and the sense of belonging, and the different uncertainties that may be experienced by students in this process.

In a recent review,57 several strategies are presented to support medical students during the transition into clinical practice that have positive effects. We suggest that if students are supported more in their emotional challenges and their feelings of uncertainty are acknowledged, the transition into clinical practice and the process of becoming a physician may be less of a struggle. Also, when these students enter clinical practice as new doctors, they may be more aware of the support one may need entering the clinical environment. The more educators and clinical supervisors learn about the challenges students are facing, the better the support they can offer. This will hopefully contribute to a development of the norms and values in clinical environments, allowing for a development of clinical communities of practice where emotions are valued and acknowledged. This, we believe, will be beneficial for all health care professionals.

Limitations

The present study was a small-scale qualitative study conducted in a specific context; thus, the extent to which the results are transferable and useful in other contexts is dependent upon similarities of
CONCLUSIONS

Medical students are subjected to a range of situations that they find emotionally challenging and distressful. Our analysis suggests that these experiences may lead to feelings of uncertainty. Four aspects of uncertainty were found: (i) feelings of insufficient knowledge and skills; (ii) struggling to manage emotions in patient encounters; (iii) perceived negative culture and values in health care, and (iv) not having a self-evident position in the health care team. Our study points to the complexity of medical students’ professional learning and the involvement of struggles with uncertainty. In the process of becoming a physician, students develop their professional identity in constant negotiation with their own perceptions, values and norms and what they experience in the local clinical context in which they participate during workplace education. The two dimensions that students have to resolve during this process concern the questions: Do I have what it takes? Do I want to belong to this medical culture? Until these questions or struggles are resolved, students are likely to experience worry about their future professional role. Our study points to the importance of supporting students in these struggles.

Contributors: MW was involved in the design of the study and the overall conceptualisation and contextualisation of the work. She was also involved in data collection and analysis and drafting the manuscript. All authors (MW, AL, AS, HH, RT and AW) conducted the data collection and analysis, as well as drafting of the work. AS and HH were involved in the design of the study, and interpretation and discussion of findings during the analysis process as well as revising the drafts of the work.

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Medical students’ feelings of uncertainty


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