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# Being a physician: what messages have medical students received during the first month of medical school experience?

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## Abstract

**Background** This study aims to investigate the meanings that first-year medical students make about becoming a physician from the messages they receive from the faculty environment, faculty members and senior students after their one-month experience at the faculty of medicine.

**Methods** In this phenomenological qualitative research, in-depth semi-structured interview was used to collect data from 21 first-year medical students, and data were analyzed through inductive content analysis method.

**Results** As a result of the analysis, one theme and four categories emerged about gaining professional competencies, having emotions specific to the profession, having sources of motivation, and challenges of becoming a physician in the future. The results reveal that first-year medical students think being a physician will help them gain professional competences, motivate them as the job is prestigious, a guaranteed profession, provides a multidisciplinary working environment, and gives opportunity to serve society and keep people alive. On the other hand, the first-year medical students are aware of the fact that their future profession will bring some challenges such as having to deal with a lot of stress, long working hours, mobbing, and having to study hard all the time during their education.

**Conclusions** We believe that the current study presents significant results and some useful knowledge regarding the first-year medical students' perception of their future career as a physician.

**Keywords** Becoming a physician, Medical profession, Medical student, Faculty of medicine, Phenomenology

## Background

Studying in medicine is viewed one of the most rewarding and academically challenging educational paths in the world; thus, it tends to attract and appeal to students who are academically successful and self-disciplined [1–3]. Medical schools are high-ability environments with careful student selection procedure, and medical students enter medical school with the aim of learning the knowledge, attitudes, and skills required for being a physician, and they are equipped with competencies they have acquired during their secondary education [4]. Therefore, in many countries, competition for admission to undergraduate medical education is strong and the entry requirements are high [5]. For example, while some countries adopt nation-wide university entrance examination scores, some others prefer to make admission decisions through individual interviews in addition to university entrance examination scores or have their own medical college admission tests for applicants [6–10].

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To be admitted to a medical school in Turkey, the students must be a high school graduate and take a relatively high score from a National University Entrance Exam conducted by Centre for Assessment, Selection and Placement (ÖSYM). Undergraduate medical education in Turkey lasts six years (the first three years: pre-clinical period, next two years are the clinical period, and the last year is the internship period). Students who graduate from medical school in Turkey have the required license to practice medicine immediately after graduation and are mostly employed in family health centers. And if the students would like to receive residency training after graduation from the faculty, they choose their specialization according to the scores of the Examination for Specialty in Medicine (TUS), which is also conducted by ÖSYM [11].

In the literature, medical students' perceptions of their future profession have been studied in relation to their career choices, but most research has been limited to either a limited number of aspects of the medical profession [12], and the studies to find out whether medical students are aware of their future profession have shown that students in their first year of medical school are not very familiar with the characteristics of the medical profession [12, 13]. Therefore, given the long and demanding educational journey medical students undergo, it is essential to understand their initial perceptions of the medical profession, as these early impressions can profoundly shape their motivation, identity development, and commitment to the field. Research suggests that the messages students receive during the early stages of their education significantly influence their future career choices, academic performance, and professional growth. However, there is limited research focusing on the critical transition period at the beginning of medical school, when students are most impressionable. Therefore, in this study, we aimed to explore the meanings that first-year medical students attribute to becoming a physician based on the messages they receive from the faculty, faculty members, and senior students after their first month at the faculty of medicine.

## Methods

This study aims to investigate the meanings that first-year medical students make about becoming a physician from the messages they receive from the faculty, faculty members and senior students after their one-month stay at the faculty of medicine. The study adopts a phenomenological qualitative research design. Phenomenology is a process that seeks reality in individuals' narratives of their lived experiences of phenomena [14]. The question "How do we bring our experiences together to build a similar or common 'everyday world'?" is one of the focal points in phenomenological-sociological studies [15]. The philosophy of phenomenological research is based on the idea that perception is the primary source of knowledge [14], and phenomenology focuses on identifying the commonalities in the perception of individuals who have experienced a particular phenomenon [16]. In phenomenology, the researcher collects data through various techniques and then identifies the common meaning for individuals' experiences of a concept or a phenomenon [17]. Phenomenological research shows that people have experiences, that these experiences can be examined, that these experiences are conscious experiences [18], that there is a need to explain the common essence of these experiences [14, 19].

### Participants

The participants consisted of 21 first-year medical students (12 female, 9 male) studying at Çanakkale University Faculty of Medicine. The following criteria were taken into consideration in the selection of these students: being a first-year medical student, not having repeated a grade, having spent just a month at the faculty, and having given consent to be audio recorded. In this respect, the sampling method is criterion sampling. In criterion sampling individuals who meet pre-determined criteria are selected for sampling [19].

The saturation principle was used to determine the number of students [20]. According to this principle, sampling is generally continued until sufficient information is reached. When a point is reached where new information and codes cannot be obtained from new participants selected for sampling and the answers given repeat themselves, the process of recruiting new participants to the sample is terminated [20, 21]. Accordingly, after conducting an interview, the researchers immediately transcribed the interview, completed the coding procedure, confirmed the coding among themselves, and then proceeded to another interview. Since the interviews were conducted sequentially and the coding was done immediately afterwards, it was possible to understand the data reached saturation, which revealed further data collection was unnecessary.

### Data collection tool

A semi-structured interview form developed by the researchers was used as a data collection tool in the study. To create the questions of the interview form, the researchers conducted a literature review on similar topics, such as medical student identity formation or experiences in medical school and identified some common themes to discuss. Then, the researchers defined the specific aspects that they want to explore, such as emotions, expectations, or challenges of the profession, etc. The interview form consisted of 11 questions. This form was presented to three experts from the field of medical

education who had previous qualitative research experience. Experts had suggestions regarding the questions in the interview form. Furthermore, the researchers tested the interview questions on two first-year medical students and got their feedback and suggestions about the questions in the interview form. Their data were not included in the analysis. After examining the suggestions from the researchers worked on the interview form and finalized the questions.

### Process

The following steps were followed while conducting the study:

- A data collection tool (semi-structured interview form) was developed.
- Expert views were obtained from three academicians from the field of medical education who had previous qualitative research experience. According to the expert views, necessary adjustments were made and the interview form was finalized.
- The ethics committee approval was obtained for the research.
- In the orientation week in September, two of the researchers (MT and İU) contacted the representative of 1st year medical students, and announced they were planning to conduct a research about first-year medical students' experience during the first month of medical school.
- The representative shared the announcement with 1st year medical students and the ones who consented to participate in the study were listed. MT and İU contacted those students in person and conducted an informative meeting about the study.
- Participants were informed about the research. Consent of the participants was obtained for audio recording. There were several students who did not consent to participate as data collection procedure includes audio recording.
- The data collection process started following the second week of October, and interviews were conducted within the month. The data collection was performed by two MT and İU.
- The interviews took place in a quiet room within the university (where no students or faculty usually uses), designed to minimize distractions and ensure a comfortable environment for participants. No non-participants were present during the interviews to maintain the integrity of the data collection process and ensure that participants could speak freely without external influence.
- Each interview took approximately twenty minutes.
- Interviews were conducted sequentially.
- After each interview, the interview was transcribed and analyzed.
- The data collection process was terminated when sufficient data saturation was reached.
- Each researcher analyzed each interview in turn before moving on to the next interview.
- The analyzed data were presented to expert opinion within the scope of the external evaluation process.
- Before writing the findings section, the 21 first-year medical students who participated in the study were contacted again and their opinions were received on whether the findings reflected their experiences.
- Research data was reported.

### Role of researchers

Four researchers conducted this research. Two of the researchers are educational scientists and academicians working in the field of medical education. Another researcher is a medical doctor specializing in family medicine, and he also works in the field of medical education. The other researcher is an academician in the field of medical education and he worked as a paramedic for years. All researchers have experience in qualitative research design, and one of the researchers have also a Ph.D. in Research Methods and Statistics in Education.

Whether qualitative research requires a long stay in the field, such as ethnography, or shorter and in-depth interviews, an interaction will often take place between the researchers and the participants. Even a brief interaction between the researcher and the participant is outside the participants' daily life routines. In qualitative research, it is accepted that researchers have some assumptions, prejudices and past beliefs in their minds, which may affect the research from the planning stage to its final stage, from analysis to reporting. In qualitative research, if researchers mention these characteristics of themselves in the research report, it will help readers consider the characteristics of the researchers [17, 22]. We, as researchers performing this trial, believe that medicine is a unique, intellectual professional profession that directly affects human life. These assumptions should be considered by readers of this trial when evaluating the possible impact of these perspectives on the research.

### Data analysis

Data were analyzed using content analysis. The literature emphasizes that content analysis can be carried out with two strategies: (1) Inductive or (2) deductive [20, 23]. Deductive content analysis aims to develop categories from theoretical evaluations with theories or theoretical concepts. In the inductive content analysis, themes and categories are extracted directly from the data set. In this study, inductive content analysis method was used.

Secondly, content analysis was conducted in accordance with the phenomenological qualitative research data analysis procedure [14].

Internal consistency reliability was calculated regarding the expert opinions received by the researchers within the scope of external evaluation. This calculation was made to decide whether the expert opinions received can be trusted in terms of consistency. Consistency coefficient was calculated with Krippendorff's Alpha. The calculated coefficient was 0.813, which indicates a high level of consistency [24].

#### Trustworthiness, credibility, and transferability

The concepts of credibility, dependability, confirmability and transferability for qualitative research are alternatives to the concepts of validity, reliability, objectivity and generalizability [25]. Qualitative research standards were also defined as "internal validity or credibility", "reliability or consistency", "external validity or transferability" [20].

Ensuring voluntary participation in research is one of the primary measures that can be taken for data reliability [26]. In this study, participants were made an appointment for an interview by two researchers (MT and İU) who work at the Department of Medical Education, Çanakkale Onsekiz Mart University. Before the interview, the purpose of the research was first explained to the participant in detail, voluntary participation consent was obtained, and when the audio recording started, the participants were asked to repeat their consent and start the audio recording. This study was conducted with multiple researchers. Each researcher analyzed each interview in turn before moving on to the next interview. The researchers came together to discuss their analyzes and mutually confirmed the analysis. This practice is also suggested in the literature [27]. In this study, the participant verification strategy was used to ensure credibility [20]. Data analysis was completed and findings were created. Before the writing the findings section, the 21 first-year medical students who participated in the study were contacted again and their opinions were received on whether the findings reflected their experiences. In addition, three external experts, who were not involved in this research, were asked to audit and evaluate the data and findings obtained. These three experts were selected from people who work in the field of educational sciences and medical education at state universities in Turkey and have previously conducted qualitative research. The data analysis performed by the researchers was sent to these experts. In this way, peer debriefing was obtained [25, 28]. In addition, what the participants said was included in the findings section with verbatim quotes. Thus, the direct quotation strategy [29] was used.

#### Ethics committee approval

This study was conducted with the approval of the Çanakkale Onsekiz Mart University Scientific Research Ethics Committee (Date of Approval: 05.https://doi.org/10.2023/No:12/58).

## Results

When the interview records of the 21 first-year medical students who participated in the research were analyzed, a common essence was reached: "When I become a physician". Under this common essence or theme, four semantic integrity/categories have been determined. These are (1) I will gain certain competencies, (2) I will have emotions specific to my profession, (3) I will have sources of motivation, and (4) I will have challenges. The participants' interpretations (categories and codes under the theme/common essence "when I become a physician") were indicated in Fig. 1.

#### Category 1: I will gain certain competences

Findings according to this category reveal that being a medical doctor will make the students gain certain professional competencies. Medical students do not only think they will have the chance to become a good academician, but they will also have the right path to scientific research. In addition, medical students think being open and enthusiastic about continuous professional learning and development is a unique situation, a medical doctor should be versatile, intellectual and professional. The following is a direct quote from one student:

> *Doctors are highly intellectual people... I wanted to move to such an environment in order to reach a higher level. Doctors are prominent figures in every field, whether in politics or sports. I like it... (Participant 4).*

Another student expressed his/her feeling that having the chance to work in a multidisciplinary field is excellent, he/she will have both the knowledge and experience to help people using the following words:

> *Of course, I couldn't see the sacrifice part yet, since I was a first-year medical student. But if you are going to do intensive multidisciplinary work in a single field and devote your life to it, you will work as a doctor in the next 30 years and organize your life accordingly. (Participant 3)*

#### Category 2: I will have emotions specific to my profession

The codes related to category 2 reveal that medical students want to be useful, they want to feel that they are useful. However, some of them worry about the

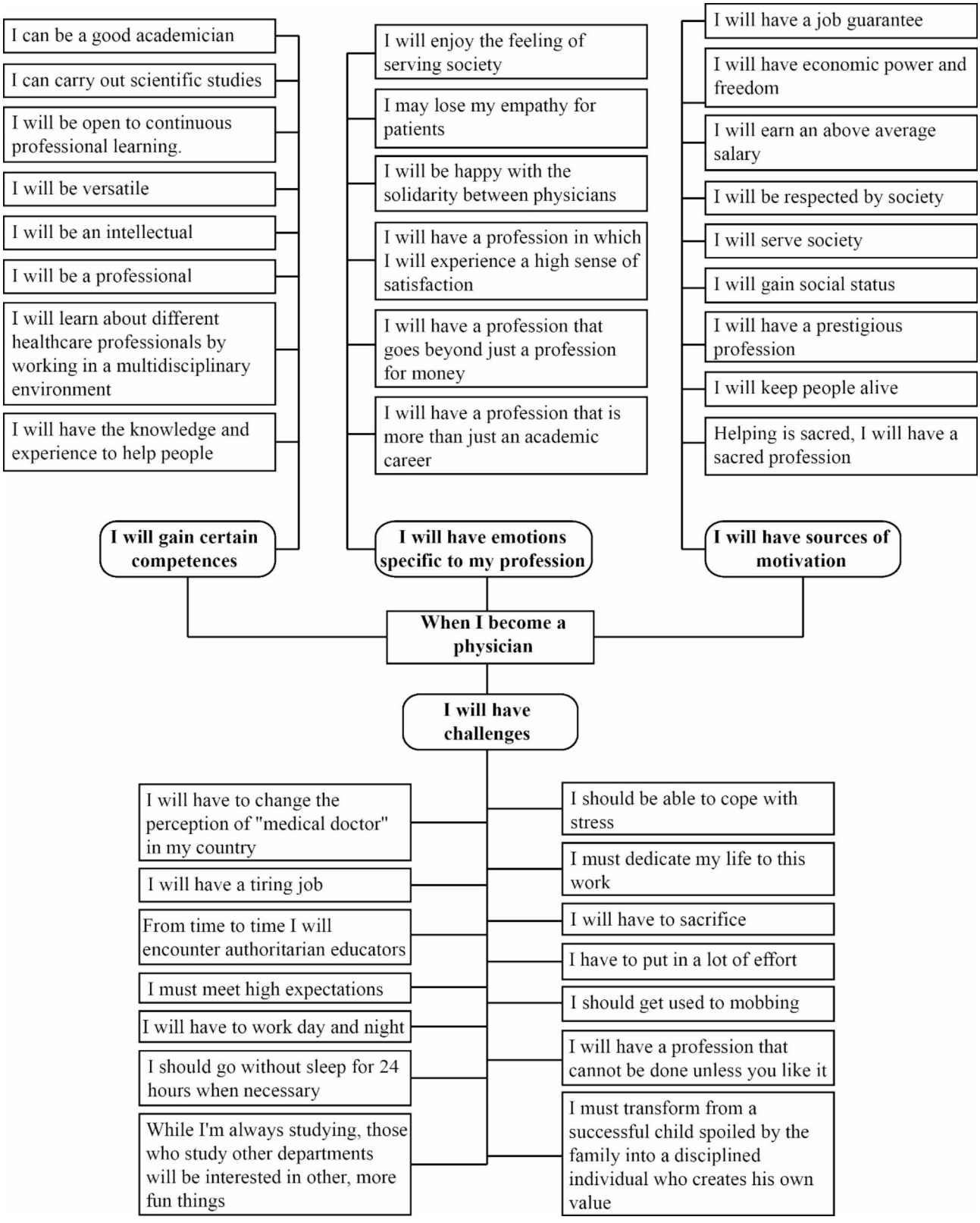


**Fig. 1** Coding tree: Meanings for the common essence of "When I become a physician"

possibility of losing their empathy or emotional perspectives on their patients when they become a physician in the future. One student explained this situation with the following words:

> *Well, I think the medical profession is very... how should I say it? It takes away a part of a person's soul... So, after all, the spirit is like leaving your patient on the table and leaving the hospital and moving on with your life. I mean, it's such a big thing for me right now, it's something that hurts my soul. Since I haven't been there yet or haven't experienced it yet, I'm saying this from an outside perspective. Or, for example, if you see a bad situation for the first time, it can turn into a job that requires you to be happy after a certain point, and I think this is how it should be. Because if we act with emotions, we can't do anything. But frankly, this scares me a bit. How is it possible to lose that thing? When a sick person arrives in the ward or a case comes, I may be happy about it rather than sorry for it. But it seems to me that we have to get to this level to become a physician. For example, you come across a case that you will encounter for the first time and the patient is unconscious. Then, for example, the doctor may be happy because he sees that case for the first time. But there is a patient there. Actually, there is nothing to be happy about, but you should be happy. Because it is a case you see for the first time and as a doctor, you need to examine the case with curiosity. (Participant 1)*

In addition, the students think that physicians are a professional group with a lot of solidarity among them. They feel that they may not experience a high sense of satisfaction in every profession, but if you are a physician, you will. Being a doctor is not just about money or just an academic career, it is much more than that. One student explained the situation with these words:

> *In the orientation they prepared for us, our friends from senior classes tried to instill in us that being a physician is not just about an academic career. Frankly, I did not contact them individually, but they made a presentation to us. They did it in Board 1. Throughout their presentations, they explained that being a physician is not just about an academic career, that we also need to participate in social activities and join organizations at our school (Participant 16).*

**Category 3: I will have sources of motivation**

According to this category, the students think that it's nice to have a secure job and not have to worry about financial freedom. They state that they will have economic power and freedom, they will have a salary above the society's average, they will be valued in society, their status will be high, they will be a prestigious angel, and at the same time, they will have the opportunity to serve society and keep people alive. The following is a quote from one student who thinks being a physician will bring some sources of motivation:

> *My grandfather was not someone who gave me a lot of pocket money; he gave it very rarely. But last month, he sent me some money just because I am studying medicine. You know, the retired people were paid a bonus of 5000 TL, and he said he would send me 2000 TL, but only because I was studying medicine. These kinds of things also happen, our teacher told us that society's respect for you will increase. (Participant 7)*

Another student who thinks the most motivational part of their future job is to have the opportunity to serve society and keep people alive stated the following:

> *For me, being a doctor means two different things. To keep alive and to serve. I think serving is a little more important than keeping alive. Because we must do whatever the free will of the person we will serve demands. Apart from that, the healing or treatment part remains. But that's the simplest part. (Participant 14)*

Another student noted about other motivational factors of being a physician:

> *Doctors generally have prestige in society. I think more or less everyone gave the same answer anyway. Apart from that, most of us may be wrong, but there is also a financial dimension to the matter. So maybe we won't get 100% reward for our efforts, but ultimately, we won't have to worry about being appointed after 6 years of education. (Participant 11)*

Another student think that helping people is sacred:

> *In terms of professional satisfaction, I believe that after healing a patient, the feeling of "yes, I am doing this job" will come, and helping people is a very sacred thing. As an individual, I have great respect for doctors. I want people to look at me this way in the future too. (Participant 9)*

**Category 4: I will have challenges**

perception about the medical profession in Turkey has changed a lot, incidents of violence towards medical doctors have increased, and therefore, they will have to change the perception of being a physician in their country. One student explained the situation using the following words:

> *What I remember during the orientation process was that it is very difficult to be a physician in Turkey, and my friends asked our professors about this issue. You know, why didn't you think of leaving the country or why are you here? They gave us some basic answers and told us that our country was going through much more difficult times at the time and medical doctors still do not leave their country, so we should not leave it in such a situation and that if there were people who would one day bring the country back to its former state, they were us! (Participant 20)*

A student thinks that he/she must be someone who can handle stress and devote his/her life to being a physician:

> *To become a good doctor, you need to work hard and should have a body that is used to stress. Frankly, I was extremely stressed even while entering a simple board. Stress tolerance is very important. But if he was able to cope with enough stress in the university exam to get into the Faculty of Medicine, I think I can handle the stress. (Participant 13)*

Some of the students expressed their feelings that their future job can be hard as it is a demanding profession which may include mobbing, authoritarian medical educators, etc. One student explained the situation with these words:

> *I have never come across an educator who puts others down in this regard. But this is also related to character and educators with high egos, and I do not say this as a bad thing, most likely after specializing in a field for 30–40 years, I will develop a very strong ego, too. I guess because there is already some and also this uncontrolled power inside me. It will definitely happen. Some educators have this. (Participant 5)*

> *I was late to class and the teacher had warned us to enter the hall from the back doors. When I entered through the front door, thinking that it would be less disturbing because the seat was in the first row, the teacher scolded me in front of 200 people. Later, when I went to the teacher and apologized, he rejected my apology and sent me away. Of course, this scared me very much, and I still have that fear. (Participant 18)*

Another student expressed the challenges of their future job using the following words:

> *I have seen that not only being a doctor, but also much more is expected outside of our job description or mission as a physician. For example, we are not psychologists, but in the lessons, we were literally told that we should understand the patients' psychology and guide them like a psychologist. I think this is wrong, because we shouldn't take psychology classes or do the duties of a psychologist. I mean, I'm not saying this is because of something. I think we shouldn't do this to avoid affecting the patient wrongly. Because we don't receive training on this. If this is something you expect from us, then we should be told the lessons that will enable us to communicate with the patient. (Participant 10)*

> *I think being a physician is very comprehensive, but I think we are not trained enough. In addition to theoretical lessons, a little more of my patient's real problems should be added in the first lesson. Okay, instead of seeing how ATP is synthesized (I'm not saying we shouldn't learn about it, but it is important, after all), I think we should also have lessons that help us understand the psychology of patients. (Participant 8)*

Students also think that being a medical doctor means having no day or night, and they have to put in a lot of effort:

> *I realized that we had to put a lot of effort. Apart from that, I realized that I had to leave this faculty as a completely different person, because the blank looks of the professors towards our questions and our blank looks towards what the teachers told us that there were different worlds, mountains and seas in between. I will have to transform; I got this message. (Participant 13)*

In addition, some of the students described the challenge of having to study hard all the time. A student noted the following:

> *You will see that while you are working hard, other people will be doing other things. But this is a matter of preference, so everyone has their own choice. We need to be ready for this. If I pass the theoretical part, the practical part will be the same, maybe they*

*will call you at night. You must be accustomed to standing guard. Going without sleep for 24 h, resting the next day and going back to work the next day, etc. We have to be aware of this. (Participant 21)*

Students also think that they must devote their lives to this profession because being a physician is a profession that cannot be done unless you love it. One student explained the situation with these words:

*People said how difficult the job was, that it brought with it great difficulties. But frankly, it didn't change my perspective much. Because, as I said, the students who come here are idealistic students and students who even dreamed of their difficulties. That's why I wasn't very surprised about what they said. (Participant 4)*

## Discussion

This study was conducted to investigate the meanings that first-year medical students make about becoming a physician from the messages they have received from the faculty environment, faculty members and senior students after their one-month experience at the faculty of medicine. The findings reveal that the students seem to have an appropriate picture of their future career as a physician even at the very beginning of their education at the faculty of medicine. In terms of the categories emerged from the data analysis, the students feel that they will gain certain competencies, have emotions specific to their profession, and will have sources of motivation. On the other hand, they are aware of the fact that they will have certain challenges. In this sense, we can conclude that they know being a physician has both advantages and disadvantages.

The first-year medical students in this study think that their future profession will help them gain certain professional competencies not only to become a good academician, but also to carry out scientific research. This finding is in line with a study in that pre-clinical students have strong beliefs about some characteristics of medical specialties, such as scientific credibility, and being an intellectual [12]. In addition, in our study, the students think they will be open and enthusiastic about continuous professional learning, be versatile, and intellectual, they will work in a multidisciplinary field and will have both the knowledge and experience to help people. Similarly, in another study, medical students also think that physicians mostly work in teams with colleague physicians and nurses, which describe the nature of the co-operation between different medical disciplines [12].

Another finding of our study was that the students believe that they will have a secure job and will not have to worry about financial freedom, which shows that being a doctor is not just about money, having a prestigious job or just an academic career. These are the advantageous parts of becoming a physician, and similar results were indicated in several studies in literature [30–32]. Also, the finding that medical students think they will not have any financial concerns or they will have financial freedom when they become physician is in line with two studies [33, 34]. Moreover, medical students are known to be highly motivated students compared with other students in higher education [35]. We believe that motivation, particularly its sources, is a crucial factor in medical education, and students' motivation levels can fluctuate over the years, potentially leading to negative emotions about their education and future careers. Therefore, medical educators should strive to enhance student motivation and maintain positive emotional states [35–37], and as long as the student has positive thoughts and emotions towards medicine, this appeal may keep them motivated despite the experienced stress [4].

In terms of the challenges, the students know that being a physician may not always be perfect. They think that they will have to study a lot, devote themselves to their job, they may face a lot of stress, mobbing, authoritarian medical educators during their education, and they will have to work over-time (day-and-night) when they become physicians. This shows that although the students admitted to medical schools are hardworking and successful, they face many challenges such as studying a lot more than their peers because of the competitive learning environment at the medical school, increased burdens of anxiety, depression once they start studying at the faculty of medicine. These findings are in line with the studies in the related literature [38–43]. For example, medical students state the challenges of becoming a physician as the long and stressful working hours and days in a study [12].

### Strengths and limitations

While previous research have explored several aspects of what it means to be physician or to be a medical student, this study is the first to specifically investigate the meanings that first-year medical students make about becoming a physician from the messages they receive from the faculty, faculty members and senior students after their one-month experience at the faculty of medicine. Furthermore, another strength of this study is that its qualitative perspective in the analysis of data. We believe that the qualitative research design enabled the professional qualifications of the medical profession to be revealed that cannot be determined through surveys. However, this study is limited in that the participants of this study the medical students who study at only one medical school in Turkey. A wider selection of participants from

the first-year medical students from different universities may have yielded further and more comprehensive findings about the meaning of becoming a physician.

## Conclusion

We believe that the findings highlight the multifaceted understanding that first-year medical students have regarding becoming a physician. They perceive their future careers as physicians not only in terms of acquiring professional competencies and facing challenges but also in terms of experiencing a wide range of emotions, upholding ethical standards, and striving for work-life balance. Understanding these nuanced perspectives can inform medical education curriculum makers, medical educators and policy makers to better prepare future physicians for the complexities of their profession. We also suggest that further studies can focus on evaluating the meaning changes while medical students progress through medical school in future studies.

### Abbreviations

| | |
|---|---|
| ÖSYM | Centre for Assessment, Selection and Placement |
| TUS | Examination for Specialty in Medicine |

## Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12909-024-06132-4.

Supplementary Material 1

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### Author contributions

MT and IU collected the data, and GK and ÇT conducted data analysis, and each author took equal responsibility for writing, revising and editing of the manuscript. All authors read and approved the final manuscript.

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### Data availability

The data that support the findings of this study are not openly available due to reasons of sensitivity and are available from the corresponding author upon reasonable request.

## Declarations

### Ethics approval and consent to participate

This study was conducted with the approval of the Çanakkale Onsekiz Mart University Scientific Research Ethics Committee (Date of Approval: 05.10.2023/ No: 12/58).

### Consent for publication

Not applicable.

### Competing interests

The authors declare no competing interests.

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