Original Article

# The medicine undergraduate's path to construct a professional identity from the middle course to the middle of the course

# Percurso do estudante de medicina na formação da identidade profissional desde o curso médio até o meio do curso

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**ABSTRACT | INTRODUCTION:** Students selected during their early years have a strong influence on humanitarian disciplines and teacher experience. By the second year, the undergraduate student experiences impressions from previous expectations before entering college. They build professional identities from competing discourses of diversity and standardization; use and negotiate these discourses differently and experience the building process differently, depending on your unique social identities; and as a result, they build different types of professional identities. **OBJECTIVE:** To investigate or track students in professional identity formation from high school to medical school, in a private institution in Salvador / BA. **METHODOLOGY:** Cross-sectional observational study with a quantitative / qualitative approach. Students in the 5th and 6th semesters of medicine, 2019.1. Questionnaire via email, or in person. Descriptive statistical analysis, IBM SPSS Statistics20.0 program. Numerical variables were analyzed following central and dispersion trends. A qualitative analysis by content analysis. Study was cleared by the local ethics committee under approval number 03547118.6.0000.5544. **RESULTS:** 197 students answered the questionnaire. Mean age 21.86 +/- 2.3; 111 (56.3%) female; 88 (44.7%) Catholics; 99 (50.3%) of the 5th semester and 98 (49.7%) of the 6th semester. 197 (100%) single and 130 (69%) live with their parents. 184 (93.4%) without previous vocational training. Mean pre-vestibular course time of 1.21 years (SD +/- 1.03). 181 (91.9%) participate in some extracurricular activity. 137 (69.4%) answered vocation as motivation to do medicine. 190 (96.4%) participants answered that there was a change in the way of thinking and acting in front of the patient and humanistic issues. 161 (81.7%) answered that the expectations were met by the course. 120 (60.9%) respondents do not feel unmotivated, guilty or ashamed when they fail during clinical practice. 190 (96.4%) perceive the influence of teachers in their education. 186 (94.4%) perceive humanistic content in the curriculum. 99 (50.3%) strongly agreed that there is competitiveness within the course. 94 (47.7%) strongly agree and 72 (36.5%) agree that they feel “more medical” after the start of clinical / hospital practices. 34 (17.3%) strongly agreed, 35 (17.8%) agreed and 73 (37.1%) agreed in part that they feel using the patient as an object. 89 (45.2%) strongly agree and 80 (40.6%) agree that the choice for a specialty may be influenced by a teacher / physician / mentor. 43 (21.8%) of the participants strongly agreed that there is influence on the way they behave and dress, 69 (35%) agreed with the statement. **CONCLUSION:** It is possible to infer that students enter the course very young and without any experience in the higher education environment. The vocation as motivation followed by the desire for knowledge and the influence of parents and family, point to the humanistic side in choosing the course, also pointing to the influences of the hidden curriculum such as the desire of the family and the presence of a family member practicing the profession. There is satisfaction with entering the course, with their experiences and how they have positively transformed students: the proximity to the patient, the curriculum, the teacher.

**KEYWORDS:** Medical education. Professional identity. Medicine student. Curriculum

**RESUMO | INTRODUÇÃO:** Em seu percurso, os estudantes encontram nos primeiros anos da faculdade, a influência principalmente das disciplinas humanísticas e experiência com professores. Até o segundo ano, o estudante do ciclo básico passa por frustrações diante das expectativas criadas anteriormente ao ingresso da faculdade. Eles constroem identidades profissionais a partir dos discursos concorrentes de diversidade e padronização; usam e negociam esses discursos de maneira diferente e experimentam o processo de construção de maneira diferente, dependendo de suas identidades sociais únicas; e, como resultado, eles constroem diferentes tipos de identidades profissionais. **OBJETIVO:** Investigar o percurso do estudante na formação da identidade profissional desde curso médio até o meio do curso de medicina, em uma instituição privada de Salvador/BA. **METODOLOGIA:** Estudo de corte transversal, observacional, de abordagem quantitativa/qualitativa. Alunos no 5º e 6º semestres de medicina, de 2019.1. Questionário aplicado presencialmente. Análise estatística descritiva, programa IBM SPSS Statistics20.0. As variáveis numéricas foram analisadas seguindo as tendências central e de dispersão. A análise qualitativa pela análise do conteúdo. Aprovado no CEP com o CAAE 03547118.6.0000.5544. **RESULTADOS:** Foram respondidos197 questionários. Média de idade de 21,86 +/- 2,3; são do sexo feminino 111 (56,3%) estudantes; 88 (44,7%) católicos; 99 (50,3%) do 5º semestre e 98 (49,7%) do 6º semestre; todos são solteiros, 197 (100%); 130 (69%) moram com os pais; 84 (93,4%) sem formação profissional prévia. Tempo médio de curso pré-vestibular de 1,21 anos (DP +/- 1,03); 181 (91,9%) participam de alguma atividade extracurricular; 137 (69,4%) responderam vocação como motivação para fazer medicina; 190 (96,4%) participantes responderam que houve mudança na maneira de pensar e agir diante do paciente e de questões humanísticas; 161 (81,7%) responderam que as expectativas foram atendidas pelo curso; 120 (60,9%) responderam não se sentem desmotivados, culpados ou com vergonha quando falham durante a prática clínica. 190 (96,4%) percebem a influência do professor na sua formação; 186 (94,4%) percebem conteúdo humanístico no currículo; 99 (50,3%) concordaram fortemente que há competitividade dentro do curso; 94 (47,7%) concordam fortemente e 72 (36,5%) concordam que se sentem “mais médico” após o início das práticas clínicas/ hospitalares. Concordaram fortemente 34 (17,3%), 35 (17,8%) concordaram e 73 (37,1%) concordaram em parte que sentem usar o paciente como objeto; 89 (45,2%) concordam fortemente e 80 (40,6%) concordam que a escolha por uma especialidade pode ser influenciada por um professor/médico/mentor; 43 (21,8%) dos participantes concordaram fortemente que há influencia no modo de se comportar e vestir, 69 (35%) concordaram com a afirmativa. **CONCLUSÃO:** É possível inferir que os estudantes entram no curso muito jovens e sem alguma experiência no ambiente de ensino superior. A vocação como motivação seguida do desejo do conhecimento e da influência de pais e família, apontam para o lado humanístico na escolha do curso, apontando também as influências do currículo oculto como o desejo da família e a presença de um familiar exercendo a profissão. Existe satisfação com o ingresso no curso, com as experiências vividas e como elas transformaram de uma maneira positiva os estudantes: a proximidade com o paciente, o currículo, o professor.

**PALAVRAS-CHAVE:** Educação médica. Identidade profissional. Estudante de medicina. Currículo.

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## Introduction

"[...] I will maintain my life and my art with purity and holiness; whichever house I enter, I will enter it for the benefit of the sick; I will avoid any voluntary act of evil or corruption [...] "[1]. This is an excerpt from the oath of Hippocrates, father of medicine, exclaimed at the graduation of the course until today. The excerpt reflects a view of society about the doctor and the mission of the profession. However, it implies attributes that the professional sometimes does not have, but that can be acquired or not during the course. Permeating the student's scientific training, there is also the formation of professional identity, which includes both formal curriculum, informal curriculum and extracurricular influences. It´s possible to see in the first years of the course, the evolution, improvement and standardisation of the idea proposed by Hippocrates to the students. Thus, the experience of the first years for the formation of identity is very important, as it is the basis of the formal and informal curriculum that must be learned so that the oath is as close to the reality[1].

According to Zimmerman (Jorge Neto AD. 2013, p. 267), identity is defined as "the property that must be kept the same, regardless of pressure". These are the characteristics that the individual brings with him / her throughout life, which are part of the personality, affections, culture, experiences and acquired knowledge[2]. Professional identity is, therefore, the articulation of the subjective and the objective seen during the course and that make up peculiarities assimilated in an ideology shared by the professional group.

Nevertheless, this ideology brings with it the view of the medical mission in which it must present characteristics such as being intelligent, studious, sensitive, secure, inspiring confidence, knowing how to measure work and leisure, always being available, being technically competent and knowing how to understand the patient[1]. These attributes sometimes come with students long before entering the course, and it is from their presence that the choice for the profession is made. However, you can also develop them in the University with the course and humanistic disciplines, by the experience with lecturers who hold them, by the influence of colleagues and by their own experiences[3].

In their journey, students find in the early years the influence mainly of humanistic disciplines and experience with lecturers. Up until the second year, the student of the basic cycle goes through frustrations from the expectations created before the entrance to the University. They build professional identities from competing discussions of diversity and standardisation; they use and negotiate these conversations differently and experience the construction process differently, depending on their unique social identities; and, as a result, they build different types of professional identities[1].

The discussions, practices, norms and expectations of the medical school and the profession are the tools that medical students use to build their identities. Although discussions of diversity and standardization are by no means the only tools that students are exposed to, due to their recent entry into medical education, these discussions can be expected to be significant within the available sociocultural repertoire[3]. Thus, discussions of standardisation and diversity convey important and powerful messages and suggestions to students about what it means to be a doctor and how they should become one.

In Brazil, no studies were found on training around professional conduct for medical students at undergraduate level, especially from before they started until the middle of the course. This study covers the influences of the choice of course, the degree, what were the expectations regarding immersion in medicine, what changed until the middle of the course and how do you identify with it. In accordance, an analysis of these aspects was carried out with medical students in the city of Salvador-Bahia.

## Literature review

Professional identity is understood in the context of medical education by several authors as the essence of the individual in the face of pressures and different situations including the individual's knowledge, affections, experiences, how he behaves and how he communicates[2]. The Oxford definition of identity English Dictionary (apud Cruess et al. 2014, p. 1447) is "a set of characteristics or a description that distinguishes a person or thing from others."[4]. For the doctor, it is the self representation, achieved in stages

throughout from the time when the characteristics, values and norms of the medical profession are internalised, resulting in thinking, acting and feeling like a doctor[4].

The professional identity formation (PIF) is an adaptive development process that occurs simultaneously on two levels according to Jarvis-Selinger et al. (apud Cruess et al. 2014, p. 1448): "(1) at the individual level, which involves the person's psychological development and (2) at the collective level, which involves the person's socialization in appropriate roles and forms of participation in community work"[4]. Psychological development occurs through the set of values, skills, knowledge that were already part of their identity, hidden curriculum, and which will undergo improvement during the university course, culminating in attributes, expressions and behaviours that insert it into a new social community[4].

At the collective level, identity will be based on personal experiences and interactions in learning environments such as classrooms, outpatient clinics, hospitals, communities and the health system. What is expected as a result of the PIF is professionalism. According to a systematic review by Wilkinson et al. (apud Findyartini, Sudarsono, 2018, p. 1), professionalism is composed of five key aspects: reliability; adherence to ethical principles; effective interactions with patients, their families and significant others; effective interactions within the health system; and a commitment to improving the competence of oneself, others and the health system[5]. Irby et al. (apud Findyartini, Sudarsono, 2018, p. 2), argue that professionalism should be considered as a set of values and ethical attributes (professionalism based on virtue), a set of behaviors (professionalism based on behaviour) or a method for formation of personal identity; these three views are based on different constructs that can deepen the understanding of professionalism[5].

As the PIF is a complex, non-linear development process, influenced by personal characteristics, experiences and socio-cultural factors, it starts with the choice of the course.

> *The motivations that would lead young adolescents to this professional option involve two levels: conscious and unconscious. From the point of view of conscious motivations the desire to understand, to see, the desire for contact, the social prestige, the prestige of knowledge, the relief provided to those who suffer, the attraction for money, the need to be useful, the attraction for responsibility or reparation, the desire for a liberal profession and the need for security. (Ramos, 2002, p.109)*

As unconscious, there is a desire to see and know about sex and death, themes considered taboo and that the profession allows transgressing; desiring to repair and power[1].

At the beginning of the course, the student starts the transition process between high school and higher education, which in recent years has been working with a more dynamic teaching proposal[1]. Problem Based Learning (PBL) was the method implemented that allowed this dynamism from the moment he places the student as responsible for his learning and a member of a small group[1]. In the third year, half of the course, students begin contact with the clinic and from there they will build experiences with medical practice. For the "third year student", it is only necessary to examine who has already been examined, to make anamnesis of those who already have a diagnosis, who are already hospitalized and are undergoing treatment. The student feels that his work does not serve the patient and often resents using the patient as an object. Until then, nothing has been taught about supporting the feelings of the sick person[1]. The "mess" of clinical practice is at the center of the student's understanding of "becoming "[6]. For Gracey (apud Wald HS. Et al. 2018, p. 7), the proposal is to engage students in guided critical reflection on complex experiences within a humanistic learning climate as a valuable way to cultivate reflective and resilient professionals with minds and hearts "prepared" for the inevitable challenges of healthcare practice, ideally preserving humanism in medicine[6].

The imbalance triggered by the transition from the graduate student to the medical student resulted in a change in the way students perceived themselves, that used to be a multifaceted identity and now with a unique identity[7]. This change may represent a loss not only of the self, but from the activities and relationships that students previously enjoyed[7]. Students begin to function from a unique identity as a practical response to the new demands of becoming a doctor. Therefore, there is a standardisation of the student to the profession.

No longer part of the lay world of patients, but still on the margins of the medical profession, generations of medical students have been challenged to understand who they are in the context of their training and who they will be in the context of the profession[3]. Within the PIF process there are three factors that converge and make it difficult: the diversity of medical classes; the presence of two different speeches, one that promotes diversity and the other that emphasises standardisation and uniformity; and the tension between discussions without assistance from mentors. Despite all the obstacles and historical and cultural changes observed during the evolution of medical knowledge and medical education, it is easy to recognise a common characteristic that also remains a pillar of medical education: the role of a mentor / lecturer whose example must be followed. This "reference" has always been a model for the transmission of medical knowledge, including its different dimensions, such as technical aspects, social responsibility and humanitarian behaviour[8].

Thus, the pedagogical focus must be present mainly in the learning period, both for personal experience and for the experience and knowledge transmitted by the mentor.

> *There is a "product beyond activity", that is, the student acquires a new skill or expands the database. And there is also a product "inherent in the activity", that is, the development of the apprentice's character. The favourable conditions for such maturation require a relational space between teacher and student, characterised by emotional support and relentless guided reflection. The relationship must be stimulating and non-judgmental, and the learner must be encouraged to challenge the truths received. (Boudreau, Fuks, 2014, p.14)*[9]

In view of this teacher-student relationship, the understanding and recognition of emotions will provide the modulation of the student's concepts about himself, his beliefs and the chosen profession. It is an emotional resilience training, in which the practice, along with its mistakes and successes and the appropriate mentor follow-up, stimulate it to continue and improve. The result of “emotional resilience training” would be students and teachers who are able to recognise harmful self-conscious emotions (for example, shame and guilt) when they occur, engage with them in an authentic and open way, and carefully transform them in more constructive emotional responses (for example, learning)[10].

Nevertheless, students entering the course are accompanied by pre-existing identities formed by the hidden curriculum. Thus, the way they deal with experiences, especially in the third year with the initiation of clinical practice, differs, despite the resilience training that they possibly receive by the pedagogical team. The hidden curriculum will make the student look at the profession according to what most resembles its essence, consolidating its identity. Concomitantly, however, supporting, the formal curriculum is perceived by the student's modulation to the professionalism required by the profession, which also contributes, in some way, to the cognitive and affective balance[1,3,7,9].

## Objectives

### General objectives

- Investigate the formation of professional identity during the course of the student from high school to the middle of medical school.

### Especific objectives

- Identify and analyse the influences that led the medical student to choose the course;
- Identify what were the expectations before starting the course;
- Identify expectations at the beginning of training and check for changes at that time.
- Map the factors of the formal curriculum that influenced the medical student during the course up to the present moment, middle of the course.
- Understand how medical students perceive identity formation in the University and in the future profession.

## Methods

### Study design

This is a cross-sectional, observational study with a quantitative and qualitative approach.

### Design

The research was carried out with students attending the 5th and 6th semesters of the Medicine course. The approach with the students was made in person, inviting them to answer the questionnaire in Appendix A, together with the Informed Consent Form (ICF) (Appendix B). The face-to-face approach took place by inviting students, during class time, with the due consent of the lecturer present, and delivering the questionnaire and ICF at the end of the lesson.

The work was carried out through the application of a questionnaire with open and closed questions contemplating the objectives of the study according to the references found in the literature. The open question was built in the search for brief narratives about the 1st, 2nd and 3rd year of the basic cycle.

### Population of study

The study population involved 197 students taking the 3rd year Medicine course during the first semester of 2019 who participated in a census survey.

The inclusion criteria for the research were medical students, over 18 years old, attending the 5th and 6th semesters, who agreed with the ICF and answered at least 75% of the questionnaire.

### Data collection methodology

The research was carried out through the application of a questionnaire containing socio-demographic information of the students and questions related to the influences from the choice of the course until the present moment of the graduation, expectations regarding the course, how they identify and feel when they graduate and the future profession and the curriculum. The questionnaire was given in person and there was no need to send any by email.

The structured questionnaire was applied by the researcher during the academic period in the intervals of academic activities using the EBMSP environment, in a previously scheduled time and room, with a maximum duration of 30 minutes, after the invitation was made to students, during class time, with the due consent of the lecturer who was present.

### Research variables

The study variables were sex, semester, age, marital status, other prior education, housing situation (parents / alone / friends / relatives), taking a pre-university course and for how long, how to choose the course and related aspects the practices of undergraduate medicine, expectations about the profession and personal aspects that influence the formation of professional identity.

### Data processing and analysis

The quantitative analysis was descriptive, performed by the program IBM SPSS Statistics20.0. The numerical variables were analysed following the central and dispersion trends of the variables as appropriate (continuous or categorical variable) for the characterisation of the series and presentation of the results.

The qualitative analysis was carried out using the content analysis methodology of Bardin, with the students' answers grouped by year of the course and categorised.

## Ethical and legal aspects

The respective study was submitted and approved, CAAE 03547118.6.0000.5544, by the Research Ethics Committee (CEP). The ethical aspects were based on Resolution No. 466/12 of the National Health Council (BRASIL, 2014), which regulates research with direct or indirect involvement of human beings. Any research involving human beings has risks for the participants.

The risks of the research were related to the results and obtaining data that could be insufficient or that did not clearly demonstrate the main changes and influences on students in the middle of the course, in addition to the time spent in answering the questionnaire and the fear of exposing data of the participants which could be of an embarrassing nature. To clarify the participant, the TCLE was used in order to guarantee confidentiality and anonymity, demonstrate the relevance of the project and obtain authorisation for data collection. For that, those who had doubts could contact the researchers, who clarified and welcomed the participants, and could refer them to the Psychopedagogical Care Center, if necessary.

The benefits were related to the acquisition of knowledge through the use of data and results presented by this study by the institution as a means of reflecting on the influence of the formal curriculum on students; provide greater attention to the institution's medical education and the course in general; a study made available to society on Brazilian medical education covering mainly the basic, pre-clinical cycle; and finally, promoting a possible reflection by students about who they are in the face of the profession.

## Results

### Quantitative data

The questionnaires were applied and analysed with a sample of 197 students. The average age of the students was 21.86 years (SD: +/- 2.3), the most frequent age was 21 years and the minimum age was 18 and the maximum age was 33 years. Of these, 111 (56.3%) are female and 86 (43.7%) are male. Analysing the semesters corresponding to the 3rd year of the course, there are 99 (50.3%) of the 5th semester and 98 (49.7%) of the 6th semester (Table 1).

Further characteristics of the study population show that there are 88 (44.7%) Catholics, 16 (8.1%) evangelicals, 19 (9.6%) spiritualists, 16 (8.1%) agnostics, 8 (4.1%) atheists, 1 (0.5%) Buddhist and 49 (24.9%) without religion. Regarding the marital status of the participants, there were 197 (100%) who defined themselves as single. Regarding housing, 130 (69%) reported living with their parents, 28 (14.2%) alone, 10 (5.1%) with a sibling, 12 (6.1%) with friends, 12 (6, 1%) with other relatives and 5 (2.5%) with a partner (Table 1).

When analysing the professional and academic aspects, 184 (93.4%) without prior training and 13 (6.6%) with prior training were registered. When asked about having participated in a pre-university entrance course and for how long, there is an average of 1.21 years (SD +/- 1.03) with greater frequency for 1 year of pre-university entrance course. The minimum number of years was 0 and the maximum was 6 years. Regarding extracurricular activities, 181 (91.9%) participate in some activity such as league, monitoring and research, and 16 (8.1%) do not participate in any activity. These data are shown in Table 1.

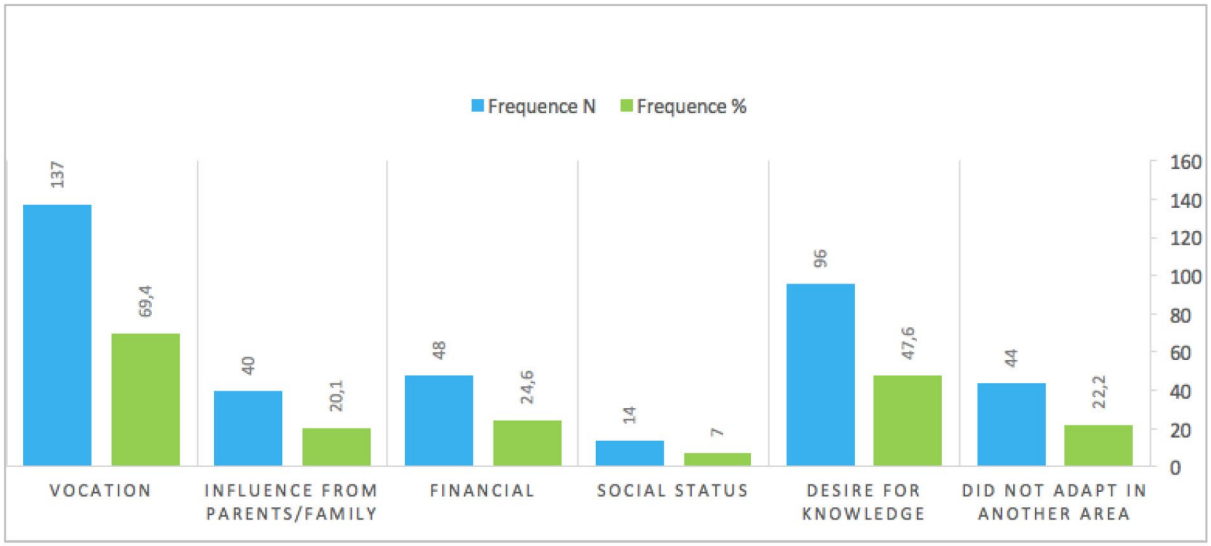
**Table 1.** Demographic characteristics of the students included in the study

| **Student's Data** | | | |
|---|---|---|---|
| **Age (years)** | | | |
| | Minimun | 18 | |
| | Maximum | 33 | |
| | Average (SD) | 21,86 +/- 2,3 | |
| | Mode | 21 | |
| **Pre-university (anos)** | | | |
| | Minimum | 0 | |
| | Maximum | 6 | |
| | Average (SD) | 1,21 +/- 1,03 | |
| | Mode | 1 | |
| **Sex** | | **N** | **%** |
| | Female | 111 | 56,3 |
| | Male | 86 | 43,7 |
| **Semester** | | **N** | **%** |
| | 5º | 99 | 50,3 |
| | 6º | 98 | 49,7 |
| **Religion** | | **N** | **%** |
| | Catholic | 88 | 44,7 |
| | Evangelical | 16 | 8,1 |
| | Spiritist | 19 | 9,6 |
| | Agnostic | 16 | 8,1 |
| | Atheist | 8 | 4,1 |
| | Buddhist | 1 | 0,5 |
| | Without | 49 | 24,9 |
| **Estado Civil** | | **N** | **%** |
| | Solteiro | 197 | 100 |
| **Prior Training** | | **N** | **%** |
| | Yes | 13 | 6,6 |
| | No | 184 | 93,4 |
| **Housing** | | **N** | **%** |
| | Parents | 130 | 66 |
| | Alone | 28 | 14,2 |
| | Friends | 12 | 6,1 |
| | Relatives | 12 | 6,1 |
| | Sibiling | 10 | 5,1 |
| | Partner | 5 | 2,5 |
| **Extracurricular activities** | | **N** | **%** |
| Liga/monitoria/pesquisa | | 181 | 91,9 |
| | Nenhuma | 16 | 8,1 |

Source: The authors (2020).

After characterising the study population, the questionnaire went on to the aspect of experiences in the course and influences before the beginning of the course and for up to the third year. When asked about the motivation for choosing medicine, 137 (69.4%) answered their vocation, 96 (47.6%) desire for knowledge, 48 (24.6%) financial, 44 (22.2%) did not adapt in another area, 40 (20.1%) influence from parents / family, and 14 (7%) social status (Graph 1).

**Graph 1.** Motivations for chosing the course medicine




Source: The authors (2020).

Furthermore on aspects of the experiences in the course and influences before the beginning of the course, from the questioning whether there was a change in the way of thinking and acting in the face of the patient and humanistic issues from the beginning of the course to the moment, 190 (96.4%) participants answered yes. Only 6 (3%) answered no and 1 (0.6%) did not answer the question (Graph 2).

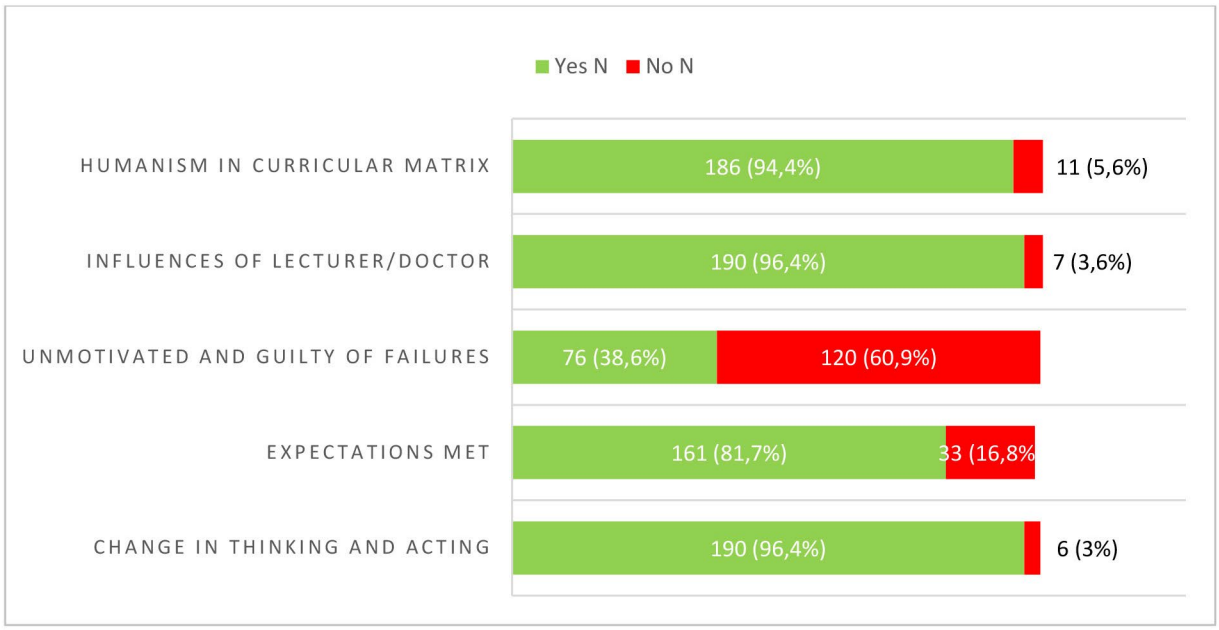
Regarding the expectations for the meaning of the course before the entry to the present moment, it was asked if they were met. Of the responses, 161 (81.7%) answered yes, 33 (16.8%) answered no and 3 (1.5%) did not answer the question (Graph 2).

When asked whether the student feels unmotivated, guilty or ashamed when he fails during clinical practice, 120 (60.9%) answered no and 76 (38.6%) answered yes. Only 1 (0.5%) student did not answer the question (Graph 2).

The experience and influence of the lecturer / doctor / mentor in the doctor - patient relationship was also evaluated. The positive or negative influence was perceived by 190 (96.4%) participants who answered yes to the question. A minority, 7 (3.6%) students, answered that they had not suffered any influence (Graph 2).

The curricular matrix of medicine, including outpatient and surgical practices, was another item assessed when asked whether students perceive medical practice based on humanism. Of the responses, 186 (94.4%) answered yes and 11 (5.6%) answered no (Graph 2).

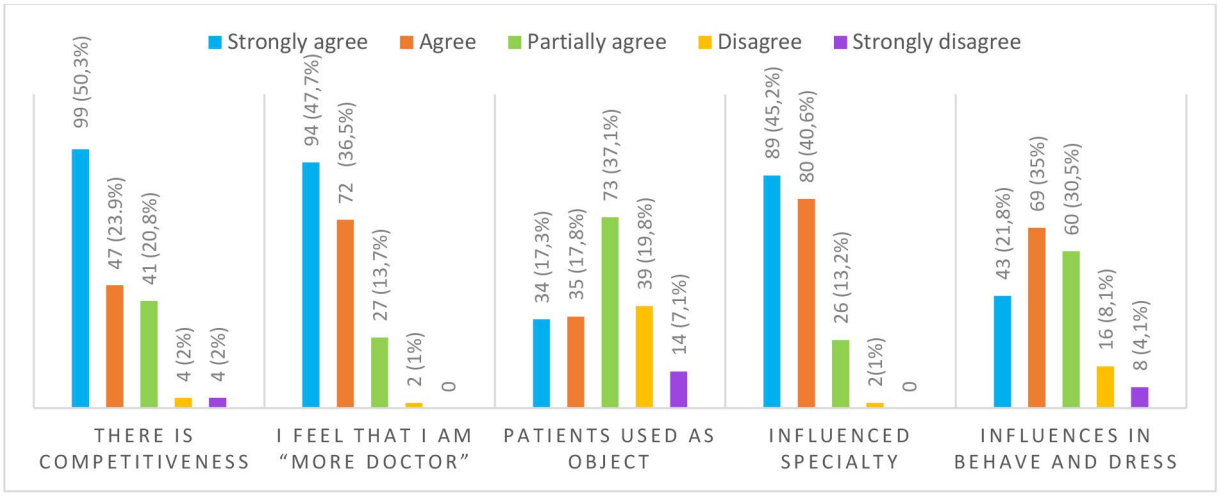
**Graph 2.** Aspects of the course and clinical practice I




Source: The authors (2020).

In some of the questions in the questionnaire, the answers were graded as strongly agree, agree, partially agree, disagree and strongly disagree. With this graduation, a better analysis of the students' opinions was possible. Thus, students were asked whether they agreed that there is competitiveness within the course in relation to grades, knowledge and the performance of extracurricular activities. A number of 99 (50.3%) strongly agreed with the statement, 47 (23.9%) agreed and 41 (20.8%) partially agreed. Only 4 (2%) and 4 (2%) disagreed with the statement strongly (Graph 3).

**Graph 3.** Aspects of the course and clinical practice II




Source: The authors (2020).

Clinical / hospital practice was approached with the following question: I feel that I am "more doctor" after the start of clinical / hospital practices in the 5th and 6th semester. The response strongly agree was 94 (47.7%) students, agree 72 (36.5%) and partially agree 27 (13.7%). Only 2 (1%) disagreed and there was no response in the alternative strongly disagree (Graph 3).

However, within the clinical practice with patients already diagnosed and hospitalized, it was asked whether the student felt he was using them as an object. Of the responses, 34 (17.3%) strongly agreed, 35 (17.8%) agreed and 73 (37.1%) partially agreed. 39 (19.8%) disagreed with the questioning and 14 (7.1%) strongly disagreed (Graph 3).

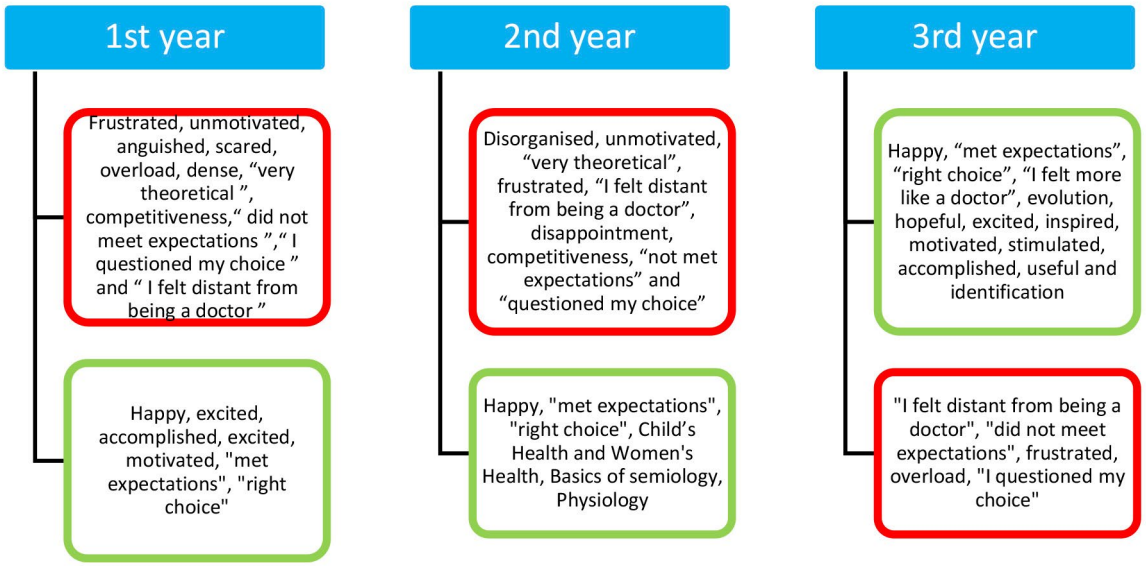
In terms of things that may influence, analysis showed that the choice for a specialty can be influenced by a lecturer / doctor / mentor. 89 (45.2%) of the students strongly agreed, 80 (40.6%) agreed and 26 (13.2%) partially agreed. In this regard, only 2 (1%) disagreed and there was no response for the category strongly disagree (Graph 3).

Simultaneously, 43 (21.8%) of the participants strongly agreed that university influences the way they behave and dress, 69 (35%) agreed with the statement and 60 (30.5%) partially agreed. 16 (8.1%) participants disagreed with the question and 8 (4.1%) strongly disagreed (Graph 3).

**Qualitative data**

The qualitative data was based on a proposal to report the student's feelings in the 1st, 2nd and 3rd year based on the following questions: Have my expectations been met or have I been frustrated this year with the course? Did I feel distant from being a "doctor"? I wondered about making the choice for the course? Did I feel happy with everything I've done in the course so far? As shown in Figure 1, below.

**Figure 1.** Student feelings




Source: The authors (2020).

From the analysis of each year it was possible to extract some words and expressions that had a greater frequency and create two categories: positive feelings and negative feelings. In the reports of the first year of the course, a group of words and expressions with a negative connotation was frequent, among which are: frustrated, unmotivated, anguished, scared, overload, dense, “very theoretical ”, competitiveness,“ did not meet expectations ”,“ I questioned my choice ” and “ I felt distant from being a doctor ”. Of these, the word frustration and the expression “I felt distant from being a doctor” were constantly being echoed.

In the first year, other words and expressions of positive connotation were also seen: happy, excited, accomplished, excited, motivated, "met expectations", "right choice". In general, students attributed all these to the first moment of entering the medical course. A minority, still, qualified the first year as organised and as the theory being fundamental for the development in the course.

The second year of the course was described with a greater frequency of words with a negative connotation such as: disorganised, unmotivated, “very theoretical”, frustrated, “I felt distant from being a doctor”, disappointment, competitiveness, “not met expectations” and “questioned my choice”.

They positively characterised the second year with the following words and expressions: happy, "met expectations", "right choice". These had a lower frequency when compared to negative connotation words in the same year and when compared to positive connotation words in the first year.

However, they attributed an improvement in expectations in the second year by adapting to the course, by practicing in the subjects of Child’s Health and Women's Health in the 3rd semester and Basics of semiology in the 4th semester, as well as Physiology. There was also a highlight for the 3rd semester in general, but with a negative connotation.

For the 3rd year, students used more frequently positive words and expressions such as: happy, “met expectations”, “right choice”, “I felt more like a doctor”, evolution, hopeful, excited, inspired, motivated, stimulated, accomplished, useful and identification. Most students shared the idea that clinical and surgical practice brought them closer to identification as a doctor, as well as contact with the patient. Participation in research groups, monitoring, leagues was also attributed as a positive form of the year.

A minority characterised the 3rd year in a negative way with words and expressions such as: "I felt distant from being a doctor", "did not meet expectations", frustrated, overload, "I questioned my choice".

In addition, there was a concern with the student's development when he attributed to the year an increase in responsibility and the appearance of concern about the “proximity” of the Residence and the end of the course. They related responsibility and concern to the expression “I felt more like a doctor”.

## Discussion

In view of the quantitative data presented in the results, it is possible to draw a profile of a 3rd year student. Most of them are 21 years old, female, Catholic, single and living with their parents.

In the academic profile, it is clear that the student is characterised as having no previous training, having completed an average of 1 year of pre-university entrance exam and with active participation in extracurricular activities. From this, it is possible to infer that students enter the course at a very young age and without any experience in the higher education environment. Thus, the student feels in his early years a difficulty in adapting as the dynamics of Higher Education corresponds to a greater workload and with more subjects to study[1,11].

Entry into the course was marked mainly by vocation as a motivation followed by the desire for knowledge and the influence of parents and family. These results point to the humanistic side in choosing the course,

also indicating the influences of the hidden curriculum such as the family's desire and the presence of a family member exercising the profession[1,12]. Blaya (1972), cited by Rocco on the question of choice doctor stated that:

> *... being a doctor has always been ... one of the strangest choices as a vocation, because it implies the desire to be always close to suffering and death, contingencies so feared by human beings (...) it is first of all a curiosity and a desire, conscious or unconscious, to know more and take better care of what we feel as sick in ourselves. Rocco (1992 apud Ramos, Lima, 2002, p.109)*[1]

From the moment of starting the course, their first experiences and their adaptation, the vast majority of students (96.4%) perceive a change in the way of thinking and acting in the face of the patient and humanistic issues. This confirms the description of socialization, "the process by which a person learns to function within a certain society or group, internalizing their values and norms"[4]. They feel that their expectations for the course have been met (81.7%), which suggests satisfaction with entering the course, with the experiences and how they perceive the positive transformational impact on them. Although there is the potential for conflict between personal values and the development of professional values, as well as the dissonance between idealised expectations and the reality of the profession[4,6,13].

Nevertheless, the experiences during the course, including outpatient and surgical practices, brought students closer to the patient and suggested the curricular matrix as based on humanism, as according to Mounrouxe (2010)[14], identities are constructed and co-built in environments of medical interaction as we perform our daily work; and are developed in relational environments through activities, and relationships are central components of identification[14]. This corroborates the students' opinion about feeling closer to being a doctor, as the majority responded positively to this question in the face of clinical practice[14].

The lecturer / mentor was also present as a major influencer of the formal curriculum. The doctor-patient relationship evaluated by students in outpatient care influenced them so positively as "during this process, individuals can seek institutionalised norms and conventions, reproduced and reinforced in daily interactions, to structure their behavior, giving them meaning and justification "12; as negative, in which "Individuals are seen as giving meaning to institutions through their own origins and in the current context in which the institution resides. Meaning is created, not transmitted, and culture is constantly recreated. " Tierney (1997 apud Goldie, 2013, p. 952) .12 This reflects the students' view of their own experiences in attendance and the examples given by lecturers / mentors. In addition, the speciality of the lecturer / mentor marks his influence on the student's formal curriculum, as 100% responded that they agreed in some way with the presence of this influence.

Negative aspects were perceived by participants in outpatient and surgical practices. When asked whether the student feels unmotivated, guilty or ashamed when he fails during clinical practice, 120 (60.9%) answered no and 76 (38.6%) answered yes. Although the "no" answer was more frequent, attention is drawn when there is a portion that answered "yes". For this reason, Cruess (2014) states that "Socialisation is different from training."[4]. And Haffert (apud Cruess et al. 2014) also stated that: "although any occupational training involves learning new knowledge and skills, it is fusion of knowledge and skills with an altered sense of self that differentiates socialisation from training."[4]. If educational programs are to help the journey from transformation from layman to professional, the socialization process must be understood and made as favourable and effective as possible[4]. Simultaneously, a large majority agrees in some context with the existence of competitiveness in the course, which may be supporting the previous question about guilt and shame in the face of failure.

Clinical and surgical practices were also evaluated as influencing the formal curriculum when the patient-doctor relationship is viewed by the student in an objectified way, in the vast majority. At the same time, they are able to strongly influence the way they dress and behave, which implies the process of conceiving professional identity as "becoming" instead of "being" described by Scanlon (2011 apud Wong, Trollope-Kumar, 2014, p. 490)[15]. Observing and imitating models is an essential component in the formation of the professionals' identity, confirming teachers as fundamental models to shape crucial moments in this construction[4,9,12,15].

The qualitative data brought the report of the first three years of the University, characterising them as a basic cycle, and demarcating the third year as a transition cycle and entering the clinical-surgical cycle. The first year of the course was seen by students as a moment of happiness, fulfillment and motivation due to starting University, and that met expectations. However, a period of frustration, demotivation and discouragement was attributed to it, whereas it was said that it was a "very theoretical" year with little practice, with a large content density and overload due to the content and workload. The feeling that prevailed this year was the distance from medicine and "being a doctor", leading to a discreet questioning about the choice of the course. This can be seen in the reports below:

*Participant 19*
*"The subjects in the basic cycle were far from medical practice, but I felt very happy and fulfilled for being in the place I wanted, and understanding that moment as a necessary part of the process".*

*Participant 7*
*"I felt somewhat frustrated, mainly due to the large amount of theoretical classes in relation to the practices and the distance from what we imagine the course and what it really is."*

*Participant 134*
*"In the first year I felt that my needs were met, however, I was still quite confused about the course, what I should study and how far I should read. Thus, I felt distant from self-understanding of the issue of feeling like a doctor. I even questioned myself several times about choosing the course because of internal conflicts, but I didn't see any other course in which I identified myself. Some moments I was not happy because of the high burden and the workload required in subjects, but most of the time I was very happy. "*

The second year of the course was the period characterised in a more negative way than the others. The frequency of frustration and demotivation was higher, even with a large number of responses for the year as meeting expectations. It also signaled a greater questioning in relation to the choice of the course and a greater distance from the feeling of "being a doctor". The course continued to be based on "very theoretical" and what opposed this characteristic of the feeling of frustration was the practices in Child Health and Women's Health in the 3rd semester and the beginning of Semiology and the discipline of Physiology in the 4th semester. Also noteworthy is the disorganisation of the semesters and especially the 3rd, which was connoted in a more negative way by the students, and the presence of subjects that were judged to be unproductive, while they do not see use in the short or long term. This characterisation is seen in the following speech fragments:

*Participant 19*
*"The knowledge of physiology made sense after studying the subjects of the 1st year. Child and Women's Health were very nice bringing a closeness to medical practice, but I still felt that there was a lack of content to be prepared for the practice. Basics of semiology was a very cool subject that I wanted to study and learn more about ".*

*Participant 8*
*"In the 3rd semester I felt a little unmotivated with the subjects and the lecturers, but in the 4th semester I felt a great improvement in that and I could feel" more medical "seeing the physiology".*

*Participant 134*
*"In the second year I began to question myself strongly if I really wanted to be a doctor, since it is a profession that demands a lot of responsibility and commitment. I questioned myself strongly about my quality of life, but I decided to move on ".*

*Participant 135*
*"I was completely frustrated that year of the course, I felt very distant from being a doctor and I questioned myself a lot if I had made the right choice, even considering abandoning / locking the course. I didn't feel that I was evolving towards this goal of becoming a doctor, and I felt stupid and unhappy ".*

The 3rd and final year analysed in this study was highlighted as positive. Student satisfaction was seen in the high frequency of responses as "happy", "met expectations" right choice ","I felt more medical", evolution, hopeful, excited, inspired, motivated, stimulated, accomplished, useful and identification. What corroborated this positive aspect was the transition from the basic cycle to the clinical cycle, greater contact with patients and surgical practices. From that moment on, the feeling of "right choice" gained greater prominence as well as the motivation to seek new knowledge and apply the theory learned in previous years. The testimonies here confirm the positive highlight:

*Participant 56*
*"I feel very happy with the course. This year I managed to put into practice the things I learned through hospital practice, in addition to seeing all the theoretical content up close ".*

*Participant 72*
*"I am not happy with everything I did. I went through focused moments and others not so much. I could have enjoyed more in a few moments. At the moment, I am satisfied with my performance and focused. Practice encourages theoretical study, because I realise that I will be responsible for someone else's life / health, so I feel encouraged and need to know the theory. I wish I had this maturity earlier in the course and more practices ".*

*Participant 134*
*"I am feeling satisfied with the course, since we are having more contact with patients and we are going deeper into pharmacology. In this way, I am feeling closer to medical practice ".*

*Participant 135*
*"During the 5th semester I felt a little less frustrated due to the subject of Semiology at the hospital, I felt a little closer to being a doctor and I feel I have made the right choice. I felt a little less dissatisfied. Nevertheless, in the 6th semester, I started with great frustration and the desire to abandon the course, but after starting the subject of Medical Clinic at the outpatient clinic, I started to feel completely satisfied and abandoned my doubts about the course, feeling right to be a doctor, feeling the knowledge consolidate and relate, and I am completely satisfied ".*

**Limitations and Perspectives**

The study was limited by the selection of the sample and the analysis of the results. During the process of the selection of respondees, the time for application was limited and not all students were present during these moments, so the amount who enrolled regularly on the course was greater than the number who took the questionnaire. In addition, some participants answered more than 75% of the questionnaire, but did not answer all the questions. Another limitation of the study was the responses to the last question, in which some participants answered only yes or no and did not justify their answer with a longer response. However, it did not make the study unfeasible and there were no major losses. In order to obtain more explanations to the last question, at a specific time a new questionnaire could be created with more targeted questions.

## Conclusions

This study had as main objective to investigate the student's path in the formation of professional identity from high school to the moment of the middle of medical school.

Among the influences that led the medical student to choose the course, the vocation, the desire for knowledge and the financial aspect stand out. The family also plays a fundamental role in this choice.

Expectations before starting the course were positive and included practical, organised classes, as occurred in pre-university entrance courses. When starting the course, students highlight the happiness of the admission, but also the frustration with the distance from the practice, and the feeling of being a doctor. The overload of content and schedules also negatively connected expectations. Over the years, students begin to understand the process of forming professional identity and becoming a doctor gradually.

Within the formal curriculum, what contributes to the training process are clinical and surgical practices, as well as the influence of lecturers and the basic cycle, which they highlight as important.

Nevertheless, students feel that their expectations have been met, but they also show frustrations over the years. Happiness in doing and being on the course does not cancel out demotivation, disappointment and non-identification with "being a doctor". As well as being able to clearly point out that there is competitiveness, density of content and an overload of time and knowledge. At the same time, they understand that theory and the basic cycle are fundamental and that they support clinical and surgical practices as well as a critical look at the influence of lecturers / mentors in their training. In addition, they believe in the humanized doctor-patient relationship and realise that during the semesters they broaden their view of care, sustained from the beginning by happiness, experiences and the main motivations that led them to enter the course.

**Author contributions**

Both authors conceived the study, designed the method, analysed the results and wrote and approved the final version.

**Competing interests**

No financial, legal or political conflicts involving third parties (government, companies and private foundations, etc.) have been declared for any aspect of the submitted work (including, but not limited to, grants and funding, participation in advisory council, study design, preparation of manuscript, statistical analysis, etc.).

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