Interprofessional education in the undergraduate Medicine and Nursing courses in primary health care practice: the students’ perspective*

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Currently, in view of the complexity of health problems and the need for a quality and safe care to users, there has been an effort to develop interprofessional education from the beginning of undergraduate health courses. The experience of undergraduate Medicine and Nursing students with interprofessional education is investigated in teaching disciplines in primary healthcare from the perspective of these interlocutors through interviews with a semi-structured script. Data was analyzed according to Bardin’s Thematic Content Analysis. Despite their stereotypes related to the professions, students can learn about colleagues from other courses and with them, and share practices and knowledge. Furthermore, we found out that teachers play an important role as mediators of the teaching-learning process in the development of interprofessional education.

Keywords: Interprofessional education. Primary healthcare. Higher education. Brazil.

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Introduction

The implementation and development of the Brazilian National Health System (SUS) presented a new challenge to the Brazilian health education: educating professionals to work in SUS according to its ethical and political premises, who are able to respond to the complexity of health issues and provide a quality and safe care to users. These health needs have required a different arrangement in the way health work is organized.

Over the last years, different initiatives to change the education of health professions have recommended interprofessional education to advance towards a new work configuration. It is about acknowledging the need for changes in the educational and health system in an independent and articulated way. Amidst these required changes, it is worth highlighting those aimed at achieving a better connection within the health team. In this context, the need for bringing future professionals together right after their graduation as a strategy to achieve interprofessional practice in the health team is highlighted. This results in a healthcare practice where professionals from different areas provide services in a collaborative way based on comprehensive care involving users, families and communities.

Under this perspective, students or professionals from two or more health professions who learn with each of these professions and about them improve collaboration and the quality of care, and conduct researches related to interprofessional education.

In healthcare, it is observed that health professionals’ lack or little knowledge of the role of other professions with which they work in health services results in the fragmentation of care, which compromises its quality and results in dissatisfaction of professionals and users. This is influenced by stereotypes regarding other professions, fear of losing their professional identity, need for protecting their knowledge-power nucleus, among other aspects.

In Brazil, interprofessional education practices are sparse in different health education institutions, as well as related scientific literature. Published studies in the country acknowledge that professionals graduated under this perspective were more open to shared learning. Those involved had a closer relationship and were better prepared for teamwork, thus intensifying the reach of professional competencies, such as a more comprehensive healthcare.

However, the implementation of interprofessional education requires facing a series of obstacles, such as: use of different terms (multidisciplinary and interdisciplinary) related to relationships among disciplines, as if they were synonyms of interprofessionality; jargons used in each health profession; stereotypes attributed to each profession; cultural and linguistic aspects; gender asymmetries involving students; and the curricular, institutional issue that oftentimes limits integration among different undergraduate courses.

Another challenge to interprofessional education involves teacher education, which is an essential dimension to this pedagogical practice, given that, for most of them, this experience will require new knowledge and professional skills to guide students to learn with one another.

In different experiences, such as the one discussed in this article, the faculty is comprised of a rather heterogeneous diversity, including health professionals who work in care services as tutoring teachers. This brings new issues to the development of interprofessional education.

This research is based on a formal and regular space of interprofessional pedagogical practice with Medicine and Nursing students of the School of Medicine of Botucatu (FMB). It is aimed at understanding this interprofessional education experience under the students’ perspective.
Method

This is a qualitative research conducted with undergraduate health students. It is aimed at understanding the experience of these interlocutors with interprofessional education in the disciplines offered by the University, Service and Community Integration (IUSC) disciplines in the primary healthcare context. IUSC disciplines of the first and second years of the undergraduate Medicine and Nursing courses of FMB constitute the field of this research. Their scenarios of practice are Primary Care Units (UBSs) in the city of Botucatu and in its respective territories. These disciplines are part of the regular curriculum of these courses. They are mandatory and are based on comprehensive care and care humanization in primary healthcare practices.

IUSC disciplines annually welcome approximately 120 students (thirty from Nursing and ninety from Medicine), which are divided into mixed groups (12 to 14 students from each course) under the supervision of a tutoring teacher. Although part of these teachers are professionals who work in the services network, we will use the term “teacher” in this article. Groups are mostly comprised of Medicine students (70%).

Each group of students has a teacher who guides the activities with the community. The faculty is comprised of a wide diversity of professionals: social workers, dentists, educators, nurses, physiotherapists, speech-language pathologists, doctors, nutritionists, educators, communication professionals, psychologists, sociologists and occupational therapists.

An intentional sample was used to select participants by inviting two students from each group who were taking the disciplines in the first and second years in 2013 and 2014 or in the last school month of IUSC in 2014. In order to do so, teachers were invited to nominate students who were good informers. Teachers were guided towards the researchers’ interest regarding the diversity of student profiles. In this case, being a good informer cannot be confused with being a “good student,” despite the “role of good student” that informers usually play when “taking the interview too seriously and trying to answer all questions well.” All nominated subjects accepted to be interviewed. Interviews were conducted on March and December 2014. Finally, a total of ten students were interviewed (three men and seven women), five from each undergraduate course (Nursing and Medicine), from 19 to thirty years old.

Semi-structured interviews were conducted with a guided script to capture the experience of these undergraduate students in the IUSC disciplines, with special attention to interprofessional education and primary healthcare. A first version of the interview script was used with six students. After being assessed, this version was expanded and reorganized.

Interviews were conducted by the first author of this article, who did not work as an IUSC teacher at the time. All testimonies were recorded using a recorder at a place chosen by the interlocutor, and lasted about an hour. The number of interviews was considered sufficient to conform to a diversity of patterns and a certain repetition of content in the reports, ensuring diversity and wealth of data.
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The final transcription document was organized according to the Thematic Content Analysis reference, which aims at improving the content descriptions in an approximate and subjective way in order to evidence the nature of the subjects’ discourses. Among the different aspects of this reference, the one adopted here enables to obtain the units of register based on the content of the messages, classifying them in thematic categories corresponding to the predetermined themes. In order to keep the identity of the students who participated in the study confidential, fictitious names were attributed according to their biological gender. Age, birth city, name of tutoring teachers, among other information, were also changed or removed. Information about gender (masculine or feminine) was not taken into consideration in the interpretation of the results. In order to identify each student’s course, the corresponding letter “N” (Nursing) or “M” (Medicine) was added after the name.

This study was approved by the Undergraduate Medicine and Nursing Courses Committees and by FMB’s Research Ethics Committee.

Results and discussion

The analysis enabled to build two thematic categories related to interprofessional education in Medicine and Nursing in the primary healthcare context based on the perspective of the participants: (1) students learn about the colleagues from the other course and with them, and (2) teachers mediate the teaching and learning process. In each of these categories, we aimed at presenting contradictions, differences and approximations observed in the interlocutors’ discourses.

Students learn about the colleagues from the other course and with them

The experience in the IUSC disciplines enabled students to acknowledge that they learned about the colleagues from the other course and with them. This is a relevant fact if we consider that the interprofessional education development in these disciplines did not previously have curricular practices of integration among students and teachers from the Medicine and Nursing courses. Therefore, they represent the first initiative of curricular integration between these courses.

However, it is important to acknowledge that the obstacles faced by students from different courses are not only a few, particularly between Medicine and Nursing, if we consider the relationship conflicts between doctors and nurses, which have already been widely studied.

These barriers threaten the effort to transform the “learning environment into a space where students feel safe to openly express themselves” in interprofessional education, which is a key element to an “effective learning” (p. 25).

In Brazil and in other countries, one of these barriers is the income and gender difference that characterizes these professional areas. This is due to the fact that they previously guide different expectations and choices of university education. This situation is aligned to the reality of the studied institution.

We observed that, in the beginning of the course, students expressed stereotyped conceptions related to their chosen profession, as well as to other professions. This influences the way students relate to each other, as reported by a Nursing student: “ [...] because we have an opinion that Medicine students [...] being gods and saving lives, as they say. [...] they hardly ever ask for opinions [...]” (Thereza, N).

In other cases, these stereotyped conceptions were identified as disputes or hostilities among the students of these courses:

Some people, for example, say: “Oh, that’s because of the nurse.” Then you see it’s a bit of a prejudice, but not related to the profession itself, but due to course feud. And likewise, I have heard a lot, for example: “These doctors this and that,” also in a derogatory way. (Rodrigo, M)
The distance observed between Medicine and Nursing students was acknowledged by some of them as a result of the isolation of the former from colleagues from other courses. However, interprofessional education enabled Medicine students to acknowledge this distance and be more interested in the content of other courses:

I never thought I would talk to a Nursing (colleague) […]. [now…] we compare how disciplines are given between both courses. How far does Anatomy [go]? [And…] Embryology? And […] Physiology? I think this is very interesting, this contact, so we can understand the other. Because […] if we do not understand how they are educated and what they do, I am not able to have a good relationship […] (Cláudia, M)

Therefore, it is possible to acknowledge that interprofessional education contributed to breaking barriers and bringing “professions” together in education, with a greater chance of achieving an interprofessional and future collaborative practice16,17, as reported by a Medicine student:

I think it is really nice, because we end up noticing the difference a bit, for example, from the other course’s curriculum. […] However, it is nice to have this relationship with students of the other course [so that…] we can start learning how to deal with other careers that will always work with us. So this is interesting […] from the beginning of university. (Rodrigo, M)

In this study, it was also possible to identify different perspectives of the interviewed subjects as to their shared learning experience with peers from other courses. For some of them, the presence of a colleague from another course in the daily routine of the discipline’s activities can be seen as a strength, since it enabled an exchange of knowledge and judgements:

I think it is one of the most interesting disciplines in the School […] for having new people, Nursing staff, being able to exchange knowledge with them […]. Because, most of the times, people bring new things; we are able to share knowledge, opinions and even confront [them…] (Claudia, M)

While for other students, the shared learning experience requires learning reciprocity. When it does not happen, they are not able to acknowledge it as positive or even as negative:

[…] when we were visiting this patient, and Psychology was part of my workload, […] I [noticed that I] was the only one sharing knowledge to [my colleague] not him to me. […]. Before visits, I would tell him: “Hey […] we have to approach [the patient], we have to talk like this, and you also have to talk. (Rosa, N)

[…] We] have the discipline Nurse-Patient Relationship and Psychology in the very first year, which makes it easy for us to have a wider view of the patient. Medicine students […] only have basic subjects. […] Then you pay a family visit with […] a Medicine student and realize she still struggles to approach the patient, talk, ask about her life. So I think this hinders a lot [my learning]. (Thereza, N)

Differences in competencies of Medicine colleagues, as indicated by Nursing students, are a result of asymmetries in the curriculum. Therefore, a lot of disciplines with common or similar content are taught later in Medicine. This is not seen as an opportunity to guide colleagues and practice interprofessional education.

The positive aspect of the interprofessional education experience is acknowledged by some students, especially when they develop common activities between both courses. For Alessandra, a Medicine student, this experience would not be possible with “specific” content:
Because it is not discussed, at any time, in something specific to each course. For example, I think there is Nursing, management stuff where we do not have this experience in IUSC; there is no need to – they have these activities in their course. And we... For example, surgical, medical stuff, we do not have it in IUSC. So, IUSC is a common axis among courses; I think that is why it works together. (Alessandra, M)

It is also interesting to observe that Alessandra distinguishes what is common from what is specific in each course. This is consistent with the objectives of the studied disciplines that aim at developing “common” and “collaborative competencies” without depreciating the specific or “complementary competencies”\(^{(e)}\). Although the student is talking about content, it can be part of the set of knowledge and skills to be used by professionals to solve concrete issues in the work environment, what we call “competency”\(^{21}\).

These moments of knowledge application/share are when students believe interprofessional education was useful and life-enhancing due to the opportunity of learning together and sharing knowledge. The importance of these meetings with colleagues from other courses is also apparent when the inclusion of other health courses in the studied disciplines is suggested in order to learn about other health professions.

Regarding activities developed in UBSs, for Thereza, a Nursing student, by following the joint practice of members of the team comprised of different professions, they were able to understand what collaborative practice means. This can also enable students to become more interested in the USB team:

> Both of them [doctor and nurse] conducted an appointment with the pregnant woman together. I thought that was really nice because actually [...] students do not have a team vision. The students’ point of view is based on the independent professional. (Thereza, N)

If, on the one hand, the in-service experience would enable them to observe good examples of collaborative practices, on the other, it also enabled them to develop a sense of judgement of what can or cannot be a good example to be followed:

> I always say that, by looking at other people, we can always see what we want and do not want to be too. So by seeing some things, I was able to see with what I related the most, [...] what I thought was nice, some things that maybe I did not think were interesting anymore. Things I can think of doing when I become a professional and some things I would maybe do differently. (Maria, N)

The experience of students in UBSs also enabled them to acknowledge the role other professionals played in the health team, such as:

> [...] the community agent, who is someone from the community, who knows what the problems are, who is inserted into practice and can bring this relevant information. This is what will complement the approach later on. Everything you can do in the office that is not a timely analysis: knowing where this patient is inserted into and the relationships that are beyond what we can see in the traditional approach. I think they are worthwhile. (Edmo, M)

\(^{(e)}\) Common competencies are those that are similar among all professions; complementary competencies “distinguish one profession from the other”; and collaborative competencies are “those required to work in an effective way with others”\(^{22}\) (p. 16).
And also from other professionals: “I think this was really nice [...] how UBS] had doctor and nutritionist appointments [the tutor] slipped students in to see [...] a bit of how doctors and nutritionists work” (Alessandra, M).

It is worth noting that this critical opinion regarding the work conducted by the team can be qualified when teachers discuss issues, such as the role of each professional and/or the potential interprofessional collaboration present in health teams.

It is also important to note that some interlocutors of this study indicated the contact they had with professionals from the units was not enough. This suggests the need for pedagogical strategies that foster a greater interaction between students and health service professionals.

I think that, in theory, IUSC thinks [...] the relationship you will have with the UBS team is important. However, in practice, there is practically no contact with the health team. I used to be more in IUSC I because, in one of the first visits, the unit’s social worker took me to the patient’s house. So, we talked and she told me how her job was, what exactly she did, and it was really nice. [...] so, the contact was mostly with the teacher; there was no contact with the team. (Rodrigo, M)

Despite the difficulties mentioned and the different views regarding the interprofessional education experience, it is possible to confirm that practice in primary healthcare services is an opportunity to learn about the work and the role of different professionals, and the eventual collaboration among them. Additionally, the opportunities given to students so that they can learn together can, with time, reduce stereotypes related to other professions.

**Teachers mediate the teaching and learning process**

This thematic category expresses how several interlocutors in this study acknowledge teachers have an important role in enabling and strengthening interprofessional education in the disciplines’ daily routine.

Before examining the role teacher mediation can play in their pedagogical practice, how the faculty’s diversity can contribute to interprofessional education under the perspective of the students is discussed.

This great diversity of professional profiles among teachers gives rise to different opinions among students. For some of them, it was rather positive when teachers had a different professional education from their own, because they learned more and had the possibility of learning about a different profession:

I thought it was better to have a tutor who was not a doctor [...] I thought it was important that they brought [...] different information through other paths, and I do not think this would have been done by someone who was not a doctor. (Claudia, M)

[...] because I did not expect to have a tutor who was a dentist. She was able to show her point of view and how much a unit needs different professionals to have a complete care. [...] it was nice working with her, since she was from a totally different profession [...]. I think that when you bring a tutor from a different area from yours you learn much more. (Thereza, N)

For others, having a teacher from another professional area was a negative experience, because it would be a lost opportunity to learn specific competencies from their own profession.

I think that maybe it would become outdated, since we work a lot with nursing assistance, care and so on... I think that maybe we would lack on this side, and this could be complemented: “Oh, in the case of Nursing, this would be the care and the assistance.” But not that it is of any harm. I think it would be incomplete. (Graziella, N)
Although this point of view can express behaviors that are still rooted in the uniprofessional perspective of protection of a knowledge and work area,\textsuperscript{16} it is also attributed to a specific socialization of professions that shapes the students’ values and identity,\textsuperscript{5} and can, in the absence of an effective interprofessional education, limit contact with students from other professional courses. In this socialization, it is also important that colleagues from the other course acknowledge and value their future profession:

[…] because, with the nurse, I saw myself in her shoes, I saw myself in her, I saw myself saying the things she said. I would think, “One day, I can be like her.” (Rosa, N)

I want to know what nurses do. […] so, my interest would be in fostering curiosity, arising the interest of these students [from Medicine...] to be placed with nurses. (Graziella, N)

There is a challenge for teachers here. While they need to value singularities of each health profession and how they complement each other in team practice, they also need to deal with strong uniprofessional identities of some students who think interprofessional education and collaborative practice are threats to their own professional limits\textsuperscript{16}.

The experience developed in FMB’s disciplines with teachers from different professional areas is important to strengthen interprofessional education. However, it requires a continuous and critical process of teacher education, given that they “learn how to teach by teaching and reflecting upon experiences, building collective knowledge, strategies and projects”\textsuperscript{23} (p. 203).

The teacher’s mediator role is important when facing obstacles among students, as already mentioned, in the acknowledgement of other professions. By having a critical presence, this professional can contribute to overcoming stereotypes brought by students. In one of the testimonies on the tutor’s job, a Nursing student mentions its importance:

Similar to a patient I cared for and followed. She had memory issues and did not know how to deal with it. When I arrived at the health unit, I talked to my [tutoring] teacher, who told me, “Talk to the doctor. See how far this affects [...] the patient] and why this happens. Then we also talk about it with the nurse.” (Rosa, N)

By valuing the role and knowledge of each health profession, teachers contribute to facing stereotypes students can have about these professions. They can also foster knowledge exchange among students from different professional areas and between them and the health team professionals, creating interprofessional education and collaborative practice opportunities.

However, some situations indicate teachers had difficulties dealing with the diversity of professional areas among students, which can discourage a learning practice aimed at interprofessional education:

[…] when I took the course, it was not a mandatory subject in Nursing yet. So, at the time, for example, people would say, even people from the same group, “We in Medicine and the girls from Nursing.” As if we did not have a name in the first year. It was like “the Nursing girls,” as we were called. And this was even by tutors. (Thereza, N)

Teachers’ knowledge, skills and attitudes to play this mediator role in the development of interprofessional education involve different attributes. Examples of these attributes include “previous experiences, intention to work in an interprofessional group, flexibility and creativity to experience situations in a shared way with students and, particularly, teacher involvement and commitment to interprofessional education”\textsuperscript{23}. 
Some students highlighted the relevance of the bond created with teachers, their previous experience and the ability to foster exchange among peers as important elements to the teaching and learning process:

In the first year, we already have a bond with the teacher. So, it would be good to have the same tutor in the following year, since she already knows to which extent she can let us go and when to stop us. So, I think this would be nice, keeping the same teacher. (Rosa, N)

In the second year, we had much more dialog [...] and you had to go after, bring and share with the group. So, there were discussions. In the end, [the teacher] would always [...] add some information. So, I think we had more dialog and it was more constructive; also because we would end up seeking knowledge and complementing what others would bring. (Thereza, N)

[...] I did not see any difference considering the fact that they were from another professional area [...] now something that influenced me was [previous] experience. (Graziella, N)

This study’s empirical data indicates the relevance of the teacher’s mediator role to the development of interprofessional education. This relevance is reflected both when facing obstacles and stereotypes from students and developing a pedagogical practice that values diversity of knowledge from different health profession areas, promotes the construction of a relationship of mutual respect among students and fosters exchange of knowledge among peers and with the health team, consistently with what was observed by other authors²³,²⁴.

Final remarks

By analyzing interprofessional education through the Nursing and Medicine students’ perspective, this investigation verified the presence of stereotypes related to the colleague’s area or profession from the very beginning of the course. This indicates the need to start this pedagogical practice from the beginning, in the first year of the undergraduate health courses.

The results obtained also suggest that interprofessional education is experienced when knowledge share among peers, workers and health users within their context is a valued dimension highlighted in the daily routine of the teaching and learning practice. Data also indicated deeper issues that surround essential bases for operationalizing this pedagogical strategy in health teaching, such as the teacher’s importance.

The need for maintaining spaces for discussion on the application of interprofessional education as an approach that can bring about changes in professional education and of studies that suggest assessing the impact of interprofessional education in the future practice of professionals is reiterated.

In this sense, it is necessary to expand researches involving this theme, both in the investigated scenario and in other contexts. Therefore, initiatives to foster new researches focused on the identification of strengths and weaknesses that permeate interprofessional education as a teaching practice aimed at qualifying healthcare and achieving an effective collaborative work in health teams are welcome.
Authors’ contributions

All authors participated actively in all the stages of the preparation of the manuscript.

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