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# Perceptions on contributions/challenges of teaching-service-community integration from the experience of a surgical discipline

Percepções sobre contribuições/desafios da integração ensino-serviço-comunidade a partir da experiência de uma disciplina cirúrgica

Ludmila Leite Sant'Anna Vaz de Mello<sup>1</sup> (1)

Maria Aparecida Turci<sup>2</sup> (1)

Camila do Carmo Said<sup>2</sup>

Alessandra Aparecida de Carvalho<sup>3</sup> (D

Bruno Mattiello Gomes<sup>1</sup> (1)

Julia Braga Holliday<sup>1</sup> 💿

ludmila954@hotmail.com mariaturci@gmail.com camiladocarmosaid@gmail.com alessandracar13@yahoo.com.br bruno\_mattiello@hotmail.com juliaholliday15@gmail.com

#### **ABSTRACT**

Introduction: The National Curriculum Guidelines (DCN, Diretrizes Curriculares Nacionais) for the undergraduate medical course emphasize the educational training in the context of primary health care and have as axes of the curricular development, the health needs of the population and the teaching, service, and community integration (TSCI), preferably in services of the Brazilian Health System (SUS). Thus, the primary health network is a unique learning scenario, as it provides students the opportunity to experience health policies, as well as the multi-professional work, in addition to the possibility of dealing with real-life problems, associating medical-academic training to the social health needs.

**Objectives:** This work aims to analyze the characteristics of the teaching-service integration, which contribute to the university, health services and the community. It also aims to analyze the difficulties and challenges through the perception of the students, the users and the health professionals involved in the outpatient Surgery Clinic and in the extension project of UFSJ (Universidade Federal de São João del-Rei) in the health units in Tiradentes-MG.

**Methods:** This work is a qualitative study which used, as data collection instruments, semi-structured interviews with users, students and health professionals, about the perception of Teaching Service-Community Integration (TSCI). The Content Analysis technique was used for the data analysis. **Results and Discussion:** The data showed that the TSCI allowed improving the quality of work in the health service, qualifying the professionals who were working there, in addition to enhancing personal achievement of the actors in this interaction. It also brought improvements to primary care, allowing an understanding of the organization of the work practice and greater effectiveness of the Basic Health Unit. Furthermore, it was possible to perceive the challenges and impasses of this integration to be overcome, such as: lack of structure and materials, a minor discomfort, but no less important, of patients to be cared by students and confrontation of the routine of local health professionals with the University.

**Conclusion:** The university inserted in the social reality and in the primary care services trains professionals who are more qualified for more prevalent problems while benefiting the population and the local health teams.

Keywords: Teaching, service, and community integration; Curriculum Evaluation of Medical Schools; Medical Education.

# **RESUMO**

**Introdução:** As Diretrizes Curriculares Nacionais (DCN) da graduação em Medicina enfatizam a formação no contexto da atenção básica de saúde e têm como eixos do desenvolvimento curricular as necessidades de saúde da população e a integração ensino-serviço-comunidade (lesc), preferencialmente nos serviços do Sistema Único de Saúde (SUS). Dessa forma, a rede básica de saúde é um cenário de aprendizagem singular, pois proporciona aos alunos a possibilidade de eles vivenciarem as políticas de saúde e o trabalho multiprofissional, além de permitir que lidem com problemas reais, vinculando a formação médico-acadêmica às necessidades sociais da saúde.

**Objetivo:** Este estudo teve como objetivo analisar as características da integração ensino-serviço que contribuem para a universidade, os serviços de saúde e a comunidade, e as suas dificuldades e os seus desafios por meio da percepção dos discentes, usuários e profissionais de saúde envolvidos no ambulatório de cirurgia ambulatorial e no projeto de extensão da Universidade Federal de São João del-Rei (UFSJ) nas unidades de saúde em Tiradentes, em Minas Gerais.

**Método:** Trata-se de estudo qualitativo que utilizou como instrumentos de coleta de dados entrevistas semiestruturadas com usuários, discentes e profissionais de saúde sobre a percepção da IESC. Para a análise dos dados, empreendeu-se a técnica de análise de conteúdo.

**Resultado:** Os dados mostraram que a IESC permitiu melhorar a qualidade do trabalho no serviço de saúde, qualificar os profissionais ali presentes, além de ampliar a realização pessoal dos atores dessa interação. Também trouxe melhorias à atenção primária, possibilitando a compreensão da organização da prática no trabalho e maior resolubilidade da unidade básica de saúde. Ainda foi possível uma percepção dos desafios e impasses dessa integração a serem superados, como falta de estrutura e materiais, desconforto minoritário, mas, não menos importante, de pacientes a serem atendidos pelos estudantes e confronto da rotina dos profissionais de saúde locais com a universidade.

**Conclusão:** A universidade inserida dentro da realidade social e dos serviços de atenção primária forma profissionais mais capacitados para problemas mais prevalentes ao mesmo tempo que beneficia a população e as equipes de saúde locais.

Palavras-chave: Integração Ensino-serviço-comunidade; Avaliação Curricular das Faculdades de Medicina; Educação Médica.

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<sup>&</sup>lt;sup>1</sup> Universidade Federal de São João del Rei, São João del-Rei, Minas Gerais, Brazil.

<sup>&</sup>lt;sup>2</sup> Universidade José do Rosário Vellano, Belo Horizonte, Minas Gerais, Brazil.

<sup>&</sup>lt;sup>3</sup> Centro Universitário Presidente Tancredo de Almeida Neves, São João del-Rei, Minas Gerais, Brazil.

#### INTRODUCTION

The National Curriculum Guidelines (DCN, *Diretrizes Curriculares Nacionais*) of the Undergraduate Medical Course, established in 2014, aimed to promote a generalist, critical and humanized medical education focused on the population's comprehensive health care. They also brought forward the detailing of the three areas of competence (health care, health management and health education), indicating that future graduates must be committed to maintaining the diagnostic and therapeutic choice according to the patient's needs and the available resources, in addition to sharing knowledge and teamwork, essential in primary care<sup>1</sup>.

According to these guidelines, the axis of curriculum development must be the population's health needs, promoting the teaching, service, and community integration, preferably within the scope of the Brazilian Unified Health System (SUS, Sistema Único de Saúde). The teaching-service-community integration (TSCI) aims to promote the inclusion of students in the SUS practice scenarios since the beginning of undergraduate school, integrating health education and work and articulating teaching, research and extension activities with the provision of health services, based on local needs<sup>2</sup>.

This agreement between the University and the Health Service favors the students' teaching-learning process, opposing the Flexnerian model, which hinders the theoretical-practical integration<sup>3</sup>. There are several advantages of inserting the student in primary health care (PHC), such as greater empathy, humanization, bond with the user and communities during the internship. The professional appreciation felt by community health agents in contributing to student learning and training is also reported from the perspective of professionals<sup>4</sup>.

Regarding the user's view, the contribution of student inclusion in the care provided in basic health units (BHUs) is a positive one<sup>5</sup>. The training of students in a real-life scenario allows patients to become participatory agents in their training<sup>6</sup>. This evidence indicates the potential of the TSCI to be a path for the implementation of DNCs and, consequently, for the improvement of medical training in the country.

However, the literature on the subject shows difficulties in the TSCI, highlighting the different perceptions of the actors involved, lack of definition of roles and tendency of the domination of one group over another<sup>7</sup>. This reflects the professionals' lack of clarification about the educational objectives of students from the different health areas included in the teams. With better clarification by the preceptors of the students' role, fears in this interaction could considerably decrease. Moreover, there are methodological difficulties and integration based on particular negotiations<sup>8</sup>.

Difficulties in moving teachers to the practice setting, the teams' receptiveness and the current management model are also emphasized<sup>9</sup>. Another challenge is the training of qualified teachers to encourage knowledge, abdicating the concept of "having absolute monopoly on the truth", with which many are familiar due to their medical education based on the *Flexnerian* ideal.

The limitations for greater integration between the university and the services concern, mainly, the fact that different work processes are developed in these organizations. The university is more focused on the production of knowledge, "knowing", while the services are more focused on the production of health care, "doing"<sup>10</sup>. This causes a distortion of clinical practice in relation to the taught protocols.

There are still many challenges to be overcome at the TSCI and it is essential to expand the understanding of the context of the change process in the training of health professionals and in health practices in Primary Health Care (PHC), taking into account the scarcity of works on the topic<sup>3</sup>. Thus, the present study aims to analyze the aspects of the TSCI that contribute to the health services, the community and the training of students, as well as the difficulties and challenges through the perception of health professionals, users and students of an outpatient surgical discipline, whose scenario of practices is the PHC of a Brazilian municipality.

#### **METHOD**

This is a qualitative exploratory study, which used semistructured individual interviews as data collection techniques and the thematic content analysis as data analysis method.

The study was carried out at Universidade Federal de São João Del Rei (UFSJ) and sought to analyze two TSCI strategies implemented in the municipality of Tiradentes, a municipality close to São João del Rei (16.1 km), with an area of 83.209 km² and total population of 7,002 inhabitants.

Primary care in this municipality is carried out by three family health teams consisting of family health residents who stay, on average, from 18 to 24 months in the municipality. In addition, there is a team consisting of a physician, two nurses and five nursing technicians who work only in the Mixed (basic and comprehensive care) Health Unit and do not work in the family health strategy (FHS).

The first strategy of the university inserted in the municipality was the weekly outpatient clinic for minor surgeries of the Ambulatory Surgical discipline, which takes place in the Mixed Health Unit of Tiradentes. The second refers to the extension project entitled "Prevention, screening, diagnosis and treatment of skin cancer" of Universidade Federal de São João Del Rei (UFSJ) developed in all basic units of the

municipality and in the Mixed Health Unit during the period of March 2018 to March 2019, with consultations, screenings, lectures, training and surgeries.

Health professionals from basic health units (BHUs) in the municipality participated in this study, including health managers, nurses, nursing technicians and health agents and students from the medical course who had attended the Outpatient Surgery Curricular Unit at the Mixed Health Unit of Tiradentes, in addition to patients who had surgical indication and were surgically treated in the mixed health unit, originating from the Minor Surgery outpatient clinic and the extension project.

The selection of interviewees involved several decisions that were not limited to the number of subjects who would be heard. We tried to ensure that the choice included a range of characteristics, experiences and knowledges that the study intended to target. The inclusion criteria were: health professionals who had already had contact with the minor surgery clinic, users who had been submitted to surgery in this clinic or who came from the extension project; students who had attended the Ambulatory Surgery curricular unit, between the periods of August 2016 and December 2018. Professionals, users or students who, even if they fit the inclusion criteria, did not want to participate or did not sign the free and informed consent form, were excluded from the study.

It was a convenience sampling, which included 19 participants, including six students, seven health professionals and six users, and the sampling process by theoretical saturation was the criterion used to define this final sample number.

Health professionals were invited individually during the activities or by telephone. Of a total of 38 health professionals belonging to the ESF group, professionals from the mixed unit and the Health Secretariat, seven were selected, one of which was a member of the Health Secretariat, two were health agents, one was a nursing technician and three were nurses.

Six students of Ambulatory Surgery attending the first and second semesters of 2018 also participated, of a total of 13 students. Easy contact and availability were predictive factors for selecting the number of participants. Finally, users were recruited randomly from the patients' records in the small surgery room record file. From the extension project, developed from March 2018 to March 2019, nine patients selected by the Skin Cancer Joint Effort were submitted to surgery. Contact was sought with all of them and as some did not answer the phone or explained that they could not attend the appointment on the day and time scheduled for the interview, the next patients in the record book were invited. Of the total of nine, six patients were interviewed.

Data collection covered primary data. The interviews took place between March and April 2019, were individual and

conducted based on a script. For each interviewee segment, a semi-structured script was prepared with a different number of questions: 12 questions for health professionals, 6 for students and 8 for users. The scripts sought to contemplate the subjects' perceptions about the TSCI in the primary care service at the health centers in the municipality, presenting questions that addressed aspects, depending on the interviewed segment, about: satisfaction, motivation of professionals to work as a team, expansion of the concept of health and knowledge of the Unified Health System, effectiveness of primary care, encouragement of professional improvement, bonds and established relationships, safety for health teams, improvements in local resources in terms of material, organization and infrastructure, operation of the health unit and knowledge of the undergraduate medical curriculum.

The interviews were conducted by the main researcher, the teacher responsible for the project and the minor surgery outpatient clinic, and carried out on the students' usual class days, at the university itself, during the professionals' working hours and during the users' return appointment to the health unit. The interviews were transcribed and subsequently analyzed using the thematic content analysis technique in three phases: pre-analysis, exploration of the material and treatment of the results, using Bardin's<sup>23</sup> proposal as reference (2009). The pre-analysis phase was the phase where the analyzed material was organized, based on reading and choosing the relevant documents and information. In the second phase, the exploration of the material, the material was analyzed and codified through excerpts from the text in units of analysis. Then, these units were thematically grouped into initial categories and regrouped into intermediate and final categories, according to their degree of proximity, disclosing meanings and explanations, enabling interpretation and inferences. Finally, the treatment phase aimed to make the results found meaningful and valid.

The excerpts from the interviews used in this article were presented from the segment that the participant represented, using the letters U for user; S for student and HP for health professional, followed by an identification Arabic number (1 to 19) chosen at random.

The study was approved by the Research Ethics Committee of the José Rosário Vellano University, (Opinion n. 3066082). All participants signed the Free and Informed Consent Form.

#### **RESULTS**

The formulation of categories of analysis and progressive grouping of the recording units resulted in 16 initial, seven intermediate and three final categories (Chart 1).

Chart 1. Data Analysis Categories.

Initial Categories	Intermediate Categories	Final Categories
I. Professional satisfaction		
II. Teamwork	I. Integrated Teaching-Service and the quality of work	_ I. Quality of work and professional qualification _
III. Improvement in the quality of care		
IV. Proximity with the University		
V. Knowledge and professional qualification	II. Integrated Teaching-Service and professional qualification	
VI. Professional improvement		
VII. Professional's personal achievement	III. Integrated Teaching-Service and Personal Achievement	
VIII. Patient's personal achievement		
IX. Care improvement	IV. Effectiveness of primary care	_ II. Quality of PHC
X. Better access to care		
XI. Service management improvement		
XII. Understanding the SUS (operation, user profile)	V. Understanding primary care operation	
XIII. Understanding primary care operation		
XIV. Problems in structure and routine	VI. Impasses in relation to service	III. Stalemates and Challenges of Teaching – Service – Community Integration
XV. User's discomfort in being assisted by a student		
XVI. Difficulties in teamwork	VII. Challenges related to the service	

Source: The authors.

The inferences and the interpretation of the results are presented from the three final categories: Quality of work and Professional Qualification; Quality of Primary Health Care and Impasses and Challenges of the TSCI, seeking to highlight the perception of representatives of the different segments interviewed, based on the aspects related to them, on the assessed subject.

# **Quality of work and professional qualification**

The reports show the changes promoted by the presence of the TSCI, with improvements in the quality of work. The importance of teamwork was highlighted in the health professionals' statements.

They reported that teamwork allowed a greater interest in skin lesions, a desire for greater participation and an increased willingness to work in the extension project and in the outpatient clinic, disclosing an increase in professional satisfaction. "We have more support. We have further assistance. Things that we could not diagnose, and now we can... It makes you want to work more, more confidence... An extra boost! [...]" (HP3).

Also from the professionals' viewpoint, the presence of the university in the practice scenario allowed them to exchange experiences and their professional growth due to frequent contact with the teacher, which brought security to doctors and professionals in the public network. Regarding their professional experience, they reported that they were encouraged to study and learn and indicated greater effectiveness in the screening

of skin lesions and a critical look at setting priorities regarding the severity of lesions and early diagnosis. They also pointed out improvements in the quality of service to the community and greater access by the population to procedures and agility of the service and a decrease in the repressed demand: "[...] just the fact of having this service available in the municipality already brings great convenience to a demand that perhaps would take much longer to be met and here in our municipality we can do it more quickly [...]" (HP7).

Users also reported that after the inclusion of the University in the health unit, there were improvements in the quality of work with faster service, early diagnosis of skin cancer and more effective care, with greater embracement and empathy by the health professionals. They also highlighted the opportunity to have free surgical procedures performed at the unit, which they did not have before, being able to clarify doubts with the teacher and to feel that the University is closer.

They care for us with more interest... They treat us with more affection... sometimes it took them longer to see us, we got here with a little problem and they did not care about it. Now they do it, they are more helpful. (U3)

They indicated an increase in their self-esteem and personal achievement, in addition to self-care with surgical procedures and the project, demonstrating how the objectives of the medical training guidelines in relation to health care are being met through the service-teaching integration: "Ah, I think

it was interesting and even an example, my self-esteem, that I had the surgery and I am feeling beautiful and wonderful. Sometimes I did not even wear earrings or look at myself in the mirror [...]" (U6).

For the students, the integration favored the understanding of teamwork importance, in addition to a holistic view of the patient with comprehensive health care, adaptation to the socioeconomic and cultural reality and a good doctor-patient relationship, with effective communication, empathy, respect and a critical look.

When we are students, we tend to separate clinic from surgery, right? So, like that, you are always thinking: - ah, will I be able to do surgery? Won't I get sick?... and outpatient surgery is halfway between these two areas, right?... Afterwards, no, we are already sure that we are capable of doing it, yes, a clinician is capable of performing surgery... (S1)

The perception of one of the students about the importance of outpatient surgery in the physician's clinic becomes relevant because, although the curriculum advocates the training of general practitioners with basic skills in outpatient surgery, this is a little explored aspect in research about TSCI. Even more interesting is the fact of comparing the clinician with the surgeon and emphasizing that the clinician can also perform outpatient surgery.

The students reported even greater contact, development of affective bonds and empathy for patients, with understanding of their fears and anxieties, in addition to understanding what being a physician is.

We study some diseases, some lesions, some lesions in the purest and most isolated form in the individuals, but we end up forgetting that the individual is complex. We study, for instance, a skin lesion, then you get there and see a picture from a book and it turns out that is not what happens, the person, the patient has other comorbidities or fears, anxieties about entering a surgical room and this contact is different from what we learn in practice. (S6)

It was possible to perceive that the experience provided by the discipline allowed students to learn how to deal with the different patients' social realities and diversity, adapting the language used for communication, in addition to the development of empathy.

So we have to search for the right words, we have to make the information accessible to them so they understand the true meaning of it... we have to find the right words for them to understand what we want ... (52)

Empathy is what we learn the most working in these areas of the Unified System, especially with this population, which we see has no education and is lost, helpless, and we learn to create this bond and this willingness to help. (S6)

We highlight the possibility, according to the students, of applying in practice what was taught in theory. The improvement in knowledge about prevalent diseases, as well as their diagnosis and treatments, was mentioned. In the reports, it was also possible to observe the perception of personal achievement, especially regarding the feeling of confidence in carrying out the procedures:

[...] We always had patients, we had a lot of patients. And they fully trusted us. They knew they were going to be (seen by) students and even so they went and trusted us [...] (S1).

## **Quality of Primary Health Care**

Among the interventions that promote greater effectiveness in primary care is the inclusion of small outpatient surgery procedures in the basic network scenario, as an element in the development of a comprehensive and good quality PHC. For the three segments of respondents, the benefit of having a specialized service within a BHU was a highlighted aspect.

In the students' report, it was possible to observe the understanding of the early diagnosis of the disease as an important aspect of the PHC effectiveness and in the saving of resources. It was also possible to observe that they understood the importance of making the primary network more effective, as well as the decrease in the repressed demand and early diagnosis.

[...] Because we had cases of elderly individuals, who sometimes had skin cancer and who would never find out, if we had not been there with them, if they had not had this consultation [...] (S4).

... because are we being trained here to be generalists, right? And the fact that we have an outpatient surgery there at the BHU shows that we can in fact do this procedure, that we do not need to refer them and overload the system... so I believe that this experience of outpatient surgery was very important... (S1)

The students also pointed out that they understand the primary care service by understanding the principles of the SUS and how the latter works, such as the dynamics of requesting tests, referrals outside the user's residence area, in addition to being able to become familiar with the users' profile: "We are covering the principle of the SUS, which is universality, you know, that it is there to assist all people... regardless of one's financial condition or not having access to our care, to our service" [...] (S5).

Health professionals reported improvements in care such as an increase in the number of consultations, a decrease in referrals and resolution of problems in the community, as well as a decrease in the repressed demand, an active search for skin cancer cases and discernment of priorities:

[...] As it encourages us to actively search for people with skin cancer, so we end up paying more attention to both the team and the patients." (HP2).

[...] A very good thing was the small surgeries, you know... that, sometimes, it took a long time for the patient to be assisted, because the municipality did not have a vacancy and, with the university, this opportunity for the population increased [...] (HP3).

Users highlighted greater access to care by the community with the increase in the number of appointments in the unit, increased access to health care in the rural area and greater comfort for patients in the local community as they do not need to seek care outside the city. Also, the increased demand for care, greater awareness of the population and greater access to health for patients were mentioned, especially patients who were from a lower socioeconomic class who did not like to go far from their residence areas, to go to another health unit other than the local one.

Many people are ashamed to come to the hospital. Sometimes, they do not like to go to places away from their homes and you go to them and that was really nice... It could be like that in all sectors. Mohammed goes to the mountain. Even more so in a countryside town, it is difficult. It is very nice. (U6)

#### **Impasses and Challenges**

The interviewed students highlighted insufficient infrastructure and lack of materials as problems. Challenges were also identified in teamwork, in the sense of knowing how to deal with differences between professionals, with internal conflicts (knowing how to put problems aside) to optimize and improve work.

... The BHU civil servants already had a work routine, they already had a working routine for that unit and when we arrive there, they feel a little strange, for example, in terms of guidance... or even the structuring of care, right? (S6)

Health professionals also reported some impasses with the TSCI and problems in the work routine, such as the difficulty in effectively participating in university actions due to work overload and reconciling local work with the university, in addition to mentioning an insufficient number of professionals in the unit to help the university team and the difficulty, at the beginning of each semester, with the new subgroup, until they become familiar with the service.

[...] It is a busy place. There are few employees. We can't get help. It stresses us. It is already a stressed team.

They have been on duty for eighteen hours and now they are being called... But we don't have that much time. (HP4)

Users mentioned the lack of disclosure by the units of the services provided to the community. One of the students a\highlighted some patients' discomfort in being treated by students.

[...] because many times the employees in that region do not know how to explain to the BHU user population that they will be assisted or that the support will be given by students. They often get there and are uninformed, they are going to be seen by a doctor, for instance, our teacher was a plastic surgeon and they were told that they would be seen by a plastic surgeon and that ended up causing discomfort among the patients, as some did not want to be operated on by the students and it was an uncomfortable situation. (S6)

#### **DISCUSSION**

The multidisciplinary work developed at the ISCT, according to the students, allowed them to be able to work together with other professionals, manage internal and external conflicts, understand the importance of respecting everyone with their differences and valuing teamwork for work optimization and improvement. Francischini et al.<sup>11</sup> point out that it is necessary for people to understand the advantages of collaborative work, such as achieving a higher order result than individual work, positive synergy, individual and collective growth. Relationships are dynamic and conflicting, as people are unique and need to learn to work as a team.

It is also possible to apprehend that the student's interaction with the community provides the training of a professional who is more involved with society. The insertion of students in health services since the first semesters of the course has the potential to encourage students to reflect on the conflicts they experience, favoring empathy and getting them familiarized with the population's needs<sup>12</sup>. The TSCI has an impact on health institutions and services. The service operation improves its quality as the presence of students leads to reflective practice, reorienting and increasing accessibility with the diversification of practices<sup>13</sup>.

It can be observed that the TSCI was an adequate strategy to promote the "humanization" of health, helping the student to develop skills that will add to the doctor-patient relationship. The main objective of this action would be to improve relations between professionals, managers and users to promote a change in the culture of health care in Brazil<sup>14</sup>.

A literature review carried out by Amore Filho et al.<sup>15</sup> demonstrated that the attribute most often associated with the favoring of humanism is empathy, encompassing good

communication, respect, attention and understanding of the other in their diversity. The fact that the professional puts themselves in the patient's place brings them closer to reality, providing comfort and acceptance, even improving the doctor-patient relationship, which is the basis for a more humanized care.

It is also observed that the proximity with the patients facilitates the internalization and application of bonds and accountability<sup>16</sup>. The DCN<sup>17</sup> emphasize that the student's active interaction with users and health professionals should occur since the beginning of their training, providing them with the opportunity to deal with real-life problems, assuming increasing responsibilities as an agent of care and attention provider, compatible with their degree of autonomy.

Thus, from the students' perception, the experience lived by them contemplates what guides the DCN and emphasizes the great importance of the TSCI and practice in a real-life scenario to meet its objectives, since it allows students, in the scenarios of health services, to develop unique experiences, impossible to be developed in the confines of a classroom. Reality becomes the object of learning<sup>18</sup>.

The approximation of students with health services allows the understanding of the population's health needs and provides knowledge of the health network and SUS<sup>14</sup>. This is a DCN recommendation and is one of the principles of SUS for medical care focused on the real needs of the population<sup>10</sup>.

The presence of the university can act as a motivating factor for health professionals and provide improvement in the quality of care, enabling them to perceive the TSCI as an opportunity for permanent education, in addition to providing them with more security. Caldeira<sup>4</sup> reflected on the improvement of the quality of service with the presence of students, leading professionals to reflective practice, reorienting the service and increasing its accessibility. The reflective practice is understood as the ability to critically reflect on their own reasoning and decisions, and the presence of medical students motivates professionals to perform their activities well, as well as raising doubts, making them study more and review their knowledge. Thus, the automatism of the practice is reduced and reasoning and permanent training are encouraged, with a consequent improvement in the provided health care<sup>4</sup>.

The student's presence can help the community's interaction with the service<sup>4</sup>. As factors that facilitate integration, professionals perceive students' great dedication to the service. The quality of student care strengthens this integration and is demonstrated by user satisfaction, as can be seen in the reports of this research.

Effective and comprehensive primary care, as a central element of a Health Care Network, may be able to expand the

effectiveness of the care provided by the network, increase its efficiency, rationalize its costs and be able to promote a more comprehensive care to the health of the population<sup>19</sup>. This greater effectiveness reduces the excessive use of secondary care, prevents the creation of large waiting lists and reduces costs for patients and the system<sup>20</sup>.

The great contribution of incorporating minor surgeries in basic units would be to reduce the demand pressure for referrals to surgery and dermatology services and, thus, optimize the specialized resources in the municipality's care network, since patients find it difficult to have access to this type of intervention and are referred to specialized secondary level services, or even hospital services, causing displacement of users to areas far from their homes and difference in care flows between services, in addition to access difficulties with long waiting lists<sup>21</sup>.

Also, outpatient surgery in primary care offers advantages such as individualized care, reduced risk of nosocomial infection and physical disability, with faster return to work, lower morbidity and mortality; and for the health system, with reduced costs and greater availability of hospital beds.

Finally, the high turnover of professionals in the units was mentioned as a barrier to establishing bonds and good relations between the university and health services. This barrier, added to the large number of students and their high turnover, act as obstacles to communication and establishing trust between the team and the students<sup>13</sup>.

Despite being pointed out by only one interviewee, in the study by Gerken et al.<sup>22</sup>, patient dissatisfaction was also observed, who were not given the prior right to choose whether they want to participate in this type of student-teacher care, which is in disagreement with the code of medical ethics. In respect of the patient's right, it is necessary to create ways to inform about this type of teaching assistance activity, which must be made available in information material and face-to-face information.

The research sought to contribute to discussions regarding the teaching-service integration in medical courses, through the perception of students, users and health professionals. However, it does not allow the generalization of results, since the results concern only the perception of medical students attending the 5<sup>th</sup> period of the UFSJ medical course, health professionals from the basic health unit and community in the municipality of Tiradentes, state of Minas Gerais, Brazil.

## **CONCLUSION**

The experience in a real-life scenario was essential for the improvement of the students' training, in line with the DCN. They were able to learn about the most prevalent problems, the health needs of the population and act in a technical but also humane way.

The TSCI was understood as a source of personal achievement by the three interviewed segments. The students expressed that learning in a real-life scenario provided greater understanding of the operation of SUS and the PHC. There was also acknowledgement of the impact on the effectiveness of primary care, as well as greater adherence to the offered services.

For the BHUs to be able to adequately carry out the described procedures and guarantee the effectiveness of the services, it is essential that, in addition to adequate professionals, they have adequate physical structure and are equipped with materials and supplies, as well as government support with resources and encouragement to the multiprofessional team. The perception of each sector in this service makes it possible to know the difficulties and advances so that new ideas and proposals can emerge and ambulatory surgery can gain importance in this sector and become increasingly present in health services and the medical training curriculum.

#### **AUTHORS' CONTRIBUTION**

Ludmila Leite Sant'Anna Vaz de Mello: study design, project, analysis and interpretation of data and writing of the version to be published. She is responsible for all aspects of the study, by ensuring the accuracy and completeness of any part of the work. Maria Aparecida Turci and Camila do Carmo Said participated in the study design, project, analysis and interpretation of data; review and correction of the manuscript and approval of the final version to be published. Bruno Mattiello Gomes and Julia Braga Holliday participated in the performance of the project, in the literature search and writing of the manuscript. Alessandra Aparecida de Carvalho participated in the writing of the manuscript, relevant critical review of the intellectual content and approval of the final version to be published.

## **CONFLICTS OF INTEREST**

The authors declare no conflicts of interest.

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# **REFERENCES**

- Vieira SP, Pierantoni CL, Magnago C, Ney MS, Miranda RG. A graduação em medicina no Brasil ante os desafios da formação para a atenção primária à saúde. Saúde Debate. 2018;42(1): 189-207 [acesso em 30 maio 2021]. Disponível em: https://www.scielo.br/j/ sdeb/a/RFjdxdhG74jgsGRHRK9VpmM/abstract/?lang=pt. https://doi. org/10.1590/0103-11042018S113.
- Brasil. Resolução nº 569, de 8 de dezembro de 2017. Brasília: Conselho Nacional de Saúde; 2017.

- Marin MJS, Oliveira MAC, Otani MAP, Cardoso CP, Moravcik MYAD, Conterno LO, et al. School-service integration in the training of nurses and doctors: the experience of Famema. Ciênc Saúde Colet. 2014;19(3):967-74. doi: https://doi.org/10.1590/1413-81232014193.09862012.
- Caldeira ES, Leite MTS, Rodrigues-Neto JF. Estudantes de Medicina nos serviços de atenção primária: percepção dos profissionais. Rev Bras Educ Med. 2011;35(4):477-85. doi: https://doi.org/10.1590/S0100-55022011000400006.
- Almeida FCM, Maciel APP, Bastos AR, Barros FC, Ibiapina JR, Souza SMF, et al. Avaliação da inserção do estudante na unidade básica de saúde: visão do usuário. Rev Bras Educ Med. 2012;36(1):33-9. doi: https://doi. org/10.1590/S0100-55022012000200005.
- Sousa-Muñoz RL, Ronconi DE, Ramalho CO, Andrade MR, Silva APF, Pereira GCB, et al. Opinión de los pacientes sobre su participación en la enseñanza práctica de medicina en un hospital universitario de Brasil. Educ Méd. 2011;14(1):35-7 [acesso em 30 maio 2021]. Disponível em: https://scielo. isciii.es/pdf/edu/v14n1/original2.pdf.
- 7. Morita MC, Haddad AE. A concepção pedagógica e as Diretrizes Curriculares Nacionais: interface da área de educação e da saúde na perspectiva da formação e do trabalho das equipes da saúde da família. In: Moysés ST, Kryger L, Moyses SJ. Saúde bucal das famílias: trabalhando com evidências. São Paulo: Artes Médicas; 2008. p. 268-76.
- Albuquerque VS, Gomes PG, Rezende CHA, Sampaio MX, Dias OV, Lugarino RM. A integração ensino-serviço no contexto dos processos de mudança na formação superior dos profissionais da saúde. Rev Bras Educ Med. 2008;32(3):356-62. doi: https://doi.org/10.1590/S0100-55022008000300010.
- Kuabara CTM, Sales PRS, Marins MJS Tonhom SFR. Integração ensino e serviços de saúde: uma revisão integrativa da literatura. REME Rev Min Enferm. 2014;18(1):195-201. doi: http://www.dx.doi.org/10.5935/1415-2762.20140015.
- Carvalho SOB, Duarte LR, Guerrero LR. Parceria ensino e serviço em unidade básica de saúde como cenário de ensino-aprendizagem. Trab Educ Saúde. 2015;13(1):123-44. doi: https://doi.org/10.1590/1981-7746sip00026.
- 11. Francischini AC, Moura SDRP, Chinellato M. A importância do trabalho em equipe no programa saúde da família. Investigação. 2008; 8(1-3):25-32. doi: https://publicacoes.unifran.br/index.php/investigacao/article/view/62
- 12. Freire P. Pedagogia da autonomia: saberes necessários à prática educativa. São Paulo: Paz e Terra; 2004.
- Mendes TMC, Bezerra HS, Carvalho YM, Silva LG, Souza CMCL, Andrade FB. Integração ensino-serviço-comunidade no Brasil e o que dizem os atores dos cenários de prática: uma revisão integrativa. Rev Ciênc Plural. 2018;4(1): 98-116 [acesso em 31 maio 2021]. Disponível em: https:// periodicos.ufrn.br/rcp/article/view/14283.
- Brasil. HumanizaSUS: política nacional da humanização. Ministério da Saúde; 2003 [acesso em 30 maio 2021]. Disponível em: http://bvsms. saude.gov.br/bvs/publicacoes/humanizaSus.pdf.
- Amore Filho ED, Dias RB, Toledo Junior ACC. Ações para a retomada do ensino da humanização nas escolas de Medicina. Rev Bras Educ Med. 2018;42(4):14-28. doi: https://doi.org/10.1590/1981-52712015v42n4RB20180056
- Massote AW, Belisário SA Gontijo ED. Atenção primária como cenário de prática na percepção de estudantes de Medicina. Rev Bras Educ Med. 2011;35(4):445-53. doi: https://doi.org/10.1590/S0100-55022011000400002.
- Brasil. Resolução CNE/CES nº 3/2014. Institui Diretrizes Curriculares Nacionais do Curso de Graduação em Medicina e dá outras providências. Diário Oficial da União; 21 jun 2014.
- Brehmer L, Ramos FR. Experiências de integração ensino-serviço no processo de formação profissional em saúde: revisão integrativa. Rev Eletr Enferm. 2014;16(1):228-37. doi: https://doi.org/10.5216/ree.v16i1.20132.
- Mendes EV. As redes de atenção à saúde. Brasília: Organização Pan-Americana da Saúde; 2011.
- Starfield B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Brasília: Ministério da Saúde; 2004.

- 21. Oliveira PR, Favoreto CA. O. análise da realização da cirurgia ambulatorial na perspectiva da qualificação e resolubilidade do cuidado prestado pelo médico de família e comunidade na atenção primária à saúde na cidade do Rio de Janeiro. Rev Bras Med Fam Comunidade. 2019;14(41):1864 [acesso em 30 maio 2021]. Disponível em: https://rbmfc.org.br/rbmfc/article/view/1864.
- Gerken IB, Andrade CS, Lopes FB, Ribeiro MMF. Conhecimento e opinião dos pacientes sobre prática docente-assistencial. Rev Bras Educ Med. 2013;37(1):66-71. doi: https://doi.org/10.1590/S0100-55022013000100010.
- 23. Bardin L. Análise de conteúdo. São Paulo: Edições 70; 2009.



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