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THE FORMATIVE PROCESS BY ACTIVE METHODOLOGIES IN THE MEDICINE COURSE AT THE FEDERAL UNIVERSITY OF MARANHÃO AND ITS IMPLICATIONS IN REGIONAL DEVELOPMENT¹

O PROCESSO FORMATIVO POR METODOLOGIAS ATIVAS NO CURSO DE MEDICINA NA UNIVERSIDADE FEDERAL DO MARANHÃO E SUAS IMPLICAÇÕES NO DESENVOLVIMENTO REGIONAL

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Abstract

The use of Active Methodologies in undergraduate courses has the principle of making the student a protagonist in his training process, expanding his autonomy and security in the decision-making process. In this sense, the Federal University of Maranhão (UFMA), in Imperatriz/MA, adopts the use of the Problem Based Learning (PBL) Active Methodology to readjust the curriculum of the Medicine course, according to the National Curricular Guidelines (DCN) of 2014. The initiative seeks to train doctors with a perspective focused on performance in the Brazilian National Health System (SUS). This research aimed analyze the application of the Active Methodology (PBL), its contribution to the UFMA Medicine course and the perspectives of contribution to the development of the regions in which the future doctors will be inserted. The theoretical-methodological basis adopted the qualitative approach, with documentary and bibliographic analysis, in addition to being based on data collection performed by semi-structured interview script, with recorded interviews and fully decoupled. For data analysis, from the transcription of these interviews, the questions answered were categorized according to the content analysis. The results showed that: the Pedagogical Course Project (PPC) of Medicine is in accordance with the DCN; in the student's perception, the systematic use of the PBL methodology stimulates autonomy in the training process, allowing an understanding of the applicability of the study; also highlights that the teaching and service integration promotes security, appropriation, knowledge of reality and of the main problems faced by the community, and because of this they could understand the role of the protagonists of change in the public health

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scenario. All the research made it possible to prove the importance of a formative education more committed to social concern, which contributes to regional development. In 2020, fifty new doctors, graduated by UFMA in a special graduation, have already works in SUS, due to the COVID-19 pandemic.

Keywords: Management. Regional development. Education. Active Methodology. Medical training.

Resumo

O uso de Metodologias Ativas em cursos de graduação tem por princípio tornar o discente protagonista em seu processo de formação, ampliando sua autonomia e segurança no processo de tomada de decisões. Nesse sentido, a Universidade Federal do Maranhão (UFMA), em Imperatriz/MA, adota o uso da Metodologia ativa *Problem Based Learning* (PBL) para readequação do currículo do curso de Medicina, de acordo com as Diretrizes Curriculares Nacionais (DCN), de 2014. Busca-se, com a iniciativa, formar médicos com uma perspectiva voltada à atuação no Sistema Único de Saúde (SUS). Esta pesquisa objetivou analisar a aplicação da Metodologia Ativa (PBL), sua contribuição para o curso de Medicina da UFMA e as perspectivas de contribuição para o desenvolvimento das regiões nas quais os futuros médicos estarão inseridos. A fundamentação teórico-metodológica adotou abordagem qualitativa, com análise documental e bibliográfica, além de se basear na coleta de dados realizada por roteiro de entrevista semiestruturado, com entrevistas gravadas e decupadas na íntegra. Para a análise dos dados, oriundos da transcrição dessas entrevistas, categorizou-se as questões respondidas conforme a análise de conteúdo. Os resultados evidenciaram que: o Projeto Pedagógico do Curso (PPC) de Medicina está em consonância com as DCN; na percepção discente, o uso sistemático da metodologia PBL estimula a autonomia no processo de formação, permitindo a compreensão da aplicabilidade do estudo; destacaram, ainda, que a integração ensino-serviço promove segurança, apropriação, conhecimento da realidade e dos principais problemas enfrentados pela comunidade, e com isso puderam entender o papel de protagonistas de mudanças no cenário da saúde pública. Toda a pesquisa possibilitou comprovar a importância de uma educação formativa mais comprometida com a preocupação social, o que contribui para o desenvolvimento regional. Em 2020, cinquenta novos médicos, formados pela UFMA, por meio de colação de grau especial, já atuam no SUS, em decorrência da Pandemia de COVID-19.

Palavras-chave: Gestão. Desenvolvimento Regional. Educação. Metodologia Ativa. Formação Médica.

Introduction

Higher Education presents, since the 1970s, in the Medicine courses, problematizations on the education offered and the need to graduate professionals that are in line with the principles recommended by the Brazilian National Health System (SUS). This problematic shows that the government needs to invest efforts to integrate public policies into services, thus seeking to relate the practice of health to the educational practice in undergraduate courses (XAVIER, 2011).

This educational movement requires greater responsibility and commitment from Universities. These institutions need to use innovative tools to train professionals, not just with technical and scientific knowledge, but professionals who know and reflect on the differences and socio-political inequalities the life, which will form opinions and change the reality in which they live, based on substantiated information, ethical and responsible attitudes (KJAERSDAM AND ENERMARK, 2018).

Such innovation practices in education take a proactive stance and they are designed to transform the knowledge of large areas of study into economic activity, expanding the inputs that will contribute to the development of academic knowledge, with the perspective of contributing to the resolution of society's problems. The academy therefore plays a creative role, being a promoter of social development (ETZKOWITZ, 2010).

In the area of health, the description of medical professionals training is contained in the National Curricular Guidelines (DCN) for the Medical course, which establish critical thinking as a fundamental pillar to promote student awareness of the real aspects of daily routine, favoring learning based on theoretical processes and empirical experiences that reveal reality beyond what is apparent (BRASIL, 2014).

According to Cortelazzo *et al.* (2018) these aspects can be well developed in the academy, using a process of teaching and learning to move the students to the core of the educational process, allowing them greater autonomy and responsibility for their own learning, by identifying problems that can be faced in their personal/professional life. And this teaching strategy is called Active of Teaching and Learning Methodology.

Active Methodologies are innovative strategies aimed at developing the cognitive domain, especially focused on problem solving and collaborative learning among participants with different knowledge and experiences. It is set off from a situation-case, or trigger, that each participant analyzes individually (LIMA, 2015).

In this perspective, standing out as a process of innovation in Higher Education, Active Methodologies present a new meaning for the role of Higher Education Institutions, henceforth HEI, which, in this scenario, must go beyond the limits, until then considered official, of mere intramural reproducers of knowledge to allow the composition between erudition and creativity, so necessary for solving problems in society, showing great similarity with the innovation model known as the Triple Helix, which highlights the importance of the relationship between university, government and companies (CECCIM, 2007; ETZKOWITZ, 2010).

The theoretical approach of this model of autonomy promotion and applicability in professional life, combining university, government and companies is approached by the thought of Etzkowitz (2010) that brings in its historical context the emergence of the Triple Helix as a consequence of the union of two currents of thought: teaching and service. Such currents started to gain power in the 1990s, bringing in their discussions the university-industry-government relationship, with emphasis on integrating teaching and service.

To reinforce the parallel of the Triple Helix, with the use of problem based learning, we can highlight the experiences used, for more than thirty years, by the University of Aalborg, in Denmark. It applies real problems that arise in the business sector, institutions or civil society in all its undergraduate courses (KJAERSDAM and ENERMARK, 2018).

In a retrospective look at the experiences of integrating teaching and health services in Brazil, it is observed that the theory associated with practice inserts the academic community into the reality of services. On the other hand, some operational obstacles and bottlenecks have occurred for their real effectiveness (MARSIGLIA, 1995). According to Sen (2010, p. 19), what people are able to achieve positively “[...] is influenced by economic opportunities, political freedom, social powers and by conditions such as good health, basic education and incentive and improvement of initiatives”.

It was from the restructuring of the National Curricular Guidelines for Medicine courses in Brazil that the teaching and service integration started to be worked with greater focus on the Political Pedagogical Project of Medicine courses in Brazil. The publication of DCN, in 2014, reinforces the text of the Guideline of 2001 “ the teaching and service integration to link medical-academic training to social health needs, with an emphasis on SUS” (BRASIL, 2014, p.3).

When the approximation between teaching and service is done in a peaceful, orderly and legal manner, this process becomes beneficial and highly valuable, involving professors, academics, professionals and the community in an exchange of experiences and empirical/scientific knowledge capable of developing significant learning in all subjects, transforming the social context (BREHMER, 2014).

Regarding the teaching and service integration, it is possible to relate to the current National Curricular Guidelines in Medicine courses, which deal with item 4 on its organization and bring the following proposition in its original text:

Promote integration and interdisciplinarity in line with the curriculum development axis, seeking to integrate the biological, psychological, social and environmental dimensions (BRASIL, 2014, p.3).

Active Methodologies form an instructional strategy developed for undergraduate courses since the 1960s, being as first experience courses in the field of Administration and, therefore, in Medicine. Thus, Active Methodologies through Problem Based Learning (PBL), sought to create opportunities and obtain the benefits of working in small learning groups, and, to compose the structure, discussion groups should be made up of five to seven students, including a leader. Everyone would work in the same physical space, that is, in the classroom (BURGUESS, 2014).

They stand out among the most used tools in this model: case studies, theatricalization, films, problem based learning (PBL), games, inverted classroom and debates. As facilitating elements, Active Methodologies are based on a significant theoretical principle, which is the full search for autonomy.

In order to structure the discussion group on problematization, the classroom should be small to avoid dispersion of students. This group requires special attention from a tutor, who acts as a mediator/facilitator of the teaching and learning process and he has the role of instigating and deepening the discussions or resuming them when necessary (CORTELAZZO *et al.*, 2018). Comenius (2011, p.4) reinforces this idea when say that "it is necessary to develop a method of teaching in which professors teach less, so that students can learn more".

The various tools used through the use of Active Methodologies can be designed according to the objective to be achieved. It is important that the objectives of discussion provide the student with a reflection on the possibilities of solving society's problems, which can have a high impact on regional/local development, since this student, even in his undergraduate course, is already able to act as a professional, consolidating knowledge at his internship program:

Provide the students' active interaction with users and health professionals from the beginning of their training, providing the students with dealing with real problems, assuming increasing responsibilities as an agent providing care and attention, compatible with their degree of autonomy, which is consolidated in graduation with the internship program (BRASIL, 2014, p.3).

Dallabrida (2015) argues that the development of a territory, without direct considerations to geographic areas, permeates the participation of several factors: school, popular traditions, streets, families. The development can directly from the economic bias, but it takes other dimensions to fully reach the territorial development. Such factors are called, by him, capital, besides the economic, the environmental, social, cultural, institutional and human intellectual capital. The direct relationship between intellectual training and the development of economic activities, a factor taken into account as one of the dimensions for the development of a territory is also endorsed by Sen (2010).

In this context, the medical training model is problematized with the use of Active Methodologies practices in the curriculum of the UFMA Medicine course, by means of the PBL method, which can be used as a driving force, in the perspective of promoting regional and local development of the area.

Regional Development and Education

The need to offer education of quality to Brazilians is foreseen in the national legislation and is pointed out as one of the fundamental pillars in search of territorial development at the local, regional and national level.

Dallabrida (2015) argues that in order to develop the territory, it is necessary to take into account different non-geographic aspects, such as: access to quality education, respect for the different predominant cultures, as well as social, economic, environmental, institutional characteristics and intellectual capital of each region. The development involves qualitative changes in the way of life of individuals, communities, institutions and productive structures.

The education focuses on its role, currently one of the most important areas for the development of the country, acting directly on the empowerment of people, making them able to interact and strengthen social capital networks, prioritizing regional development. In this sense, education allows the acquisition of knowledge and the individual finds the way to improve the income, quality of life, and thus, even in a slow way, promotes the growth and development of the nation (NAZZARI *et al.*, 2004).

Sedlacek (2013) presents two dimensions aimed at Higher Education with regard to regional development: one addresses the social context and the other assumes the role of the individual in society. When dealing with the individual aspect, the author refers to the increase in knowledge, in contrast, the social role reflects in the ability to transfer knowledge to future citizens. It covers also three hypotheses that provide regional development: Hypothesis 1 - the universities are key players in the role of the formation of the individual as well as social learning systems allows them to play a central role in sustainability and development process; Hypothesis 2 - an academic freedom and influence in society are the key factors that make universities largely responsible for sustainable development, and empowering society is an important factor for its implementation; and Hypothesis 3 - the development and articulation of the curriculum with certain components of sustainable development promotes public awareness and helps to develop creative ideas and solutions.

For it to be feasible to achieve such dimensions, it is necessary to highlight the role of Universities as promoters of knowledge, as such educational institutions act as producers of specialized human capital, awakening specific skills in their social players. Performing an analysis of this panorama through the social perspective, it is important to highlight that not all academics trained by the HEIs operate in the region where the University is located, as the protagonist of the local scenario, which makes it difficult to point out that every citizen trained by the HEIs remains as a qualified workforce in the regional market (GOLDSTEIN, 2009).

Dallabrida (2015) states that investments in education, opportunities for training critical thinking, diverse readings contextualized and problematized based on reality are issues that directly contribute to the formation of intellectual human capital, while also strengthening social and cultural, bearing in mind that both gain strength as in-depth readings of daily life, the labor market, human relations and traditions take place. Freire (2006) corroborates Dallabrida's thought when presenting the problematizing conception of education, based on the understanding of consciousness and the world.

Sen (2010) points out the direct relationship between intellectual training and the development of economic activities, a factor taken into account as one of the dimensions for the development of a territory.

Illiteracy can be a formidable barrier to participation in economic activities that require production according to specifications or that require strict quality control (an ever increasing requirement in globalized commerce) (SEN, 2010, p.56).

In Brazil, the national legislation that regulates education meets the theories presented and defended by Dallabrida (2015) and Sen (2010). The Law of Directives and Bases of National Education - LDB - enacted on December 20, 1996, regulates the general rules and objectives for Brazilian education at the fundamental, secondary, technical, youth and adult education and higher education levels (BRASIL, 1996). It regulates that national guidelines must value the educational process and that the school, in Basic Education, needs to maintain direct links with life in society and the labor market, inspired by the principles of freedom, in the ideals of human solidarity with the purpose to guarantee a better preparation of the student for the exercise of citizenship and his qualification for the work (BRASIL, 1996).

To reinforce the principle of freedom for development, citizenship and opportunity Sen (2010, p. 9-10) reiterates:

We live in a world of unprecedented opulence, but also of extraordinary deprivation and oppression. Development consists of eliminating deprivations of liberty that limit people's choices and opportunities to exercise their citizenship considerably.

The LDB also expresses prerogatives that value student autonomy and the formation of a critical sense through the conciliation of formal school activities, research and extension with social and labor market factors. Such directives are placed as primordial, especially highlighted in the purpose of Higher Education, art. 43, that it stimulates cultural creation, the development of the scientific spirit and reflective thinking (BRASIL, 1996).

Freire (1996) points out in this sense, that education has an emancipatory character and develops active social participation in the subject, making individuals more autonomous and aware

of their rights. The author also recommends that the training of graduates takes place in different areas of knowledge, allowing its entry in professional sectors, participating in the development of society and stimulating the expansion of science, technology and the creation and dissemination of culture, thus developing the man and the environment in which he lives.

This statement is in line with Sen's thinking (2010, p.26) in relation to adequate social opportunities “[...] shape your own destiny and help each other [...] [with] a solid rationale for recognize the positive role of the condition of free and sustainable agent [...]”.

The Law of Directives and Bases of National Education was the primordial parameter for the preparation of the Curricular Guidelines for Higher Education courses regulated in the country, emphasizing a greater social participation, autonomy and training of student learning (BRAZIL, 1996).

Methodology

The theoretical methodological reasons that directed the analysis of this research is guided on a case study with a qualitative research approach, descriptive.

It is a representative case study in which the aim was to capture the circumstances of the undergraduate medical course and its contribution to the training of doctors as protagonists in society (YIN, 2005). In order to achieve the objectives proposed for carrying out the research, the application of bibliographic and documentary research is sound or qualitative, since the pedagogical project of the course, specialized books, articles published in scientific journals, and public documents available on the Internet, such as the National Curricular Guidelines (NCD) and the Law of Directives and Bases of National Education – LDB. An analysis of the curricular pedagogical project of the UFMA Medicine course, in Imperatriz-MA, was also carried out.

Some initial analysis indicators were highlighted: a) curriculum; b) interdisciplinary aspects; and c) teaching and service integration.

Participant observation was added to the method, once you want to know the particularities and conceptual aspects described in the steps of PBL during the case of running on integrator axis environment or in the UFMA Medicine course on the campus of the Federal University of Maranhão, in Imperatriz, focus of the research. Data collection took place in May and June of 2019.

The semi-structured interview was applied to the following participants:

- a) 11 students, from the 1st to the 11th periods, one student from each period of the course, selected by lot from the list of presence for each class. A new draw was carried out for each withdrawal in the period. In the event of an exhaustion of students, due to dropping out of a certain period, students from the general set of periods would have to be drawn, with the exception of students already dropping out or selected.
- b) 04 professors who uses a PBL tool, with the draw held by names among professors participating of the integrator axis. At each with drawal a new draw would have to be carried out.
- c) 01 coordinator.

In order to better understand the data revealed through the documentary analysis of the DCN of the Curricular Pedagogical Project (PPC) of the UFMA Medicine course, semi-structured interviews were carried out per agenda, as support for data collection.

Based on the data collected, content analysis was used as an analysis technique for this research. In qualitative research, content analysis, as a method of organizing and analyzing data, has unique characteristics, since it is accepted that its focus is to qualify the subject's experiences, as well as his perceptions about a certain object and its phenomena (BARDIN, 1997).

Results and Discussion

The following discussion was structured in the categories: autonomy, student leadership and teaching methodology with a focus on the student. To reach these categories, the researcher based the analysis on Comênius (2011), Sen (2010), Freire (1980), Kjaersdam and Enemark (1994), Dallabrida (2011) and in the interviewees' statements. The researcher evaluated how the category discusses student knowledge in relation to autonomy and protagonism in academic life.

It should be noted that the oral excerpts obtained from the interviews with the student group, which are now analyzed, were chosen in relation to the Content Analysis Categories. It was also

sought to preserve, in the act of transcribing the speeches analyzed, the linguistic expressiveness presented by the interviewees at the moment of sound recording.

When asked about the development of the ability to learn how to learn (autonomy), students point out that the process is motivating, instigating, and constructive and requires a lot of dedication and personal organization, as shown in the oral report below:

Because I know that I will only learn, what I learn will depend a lot on me. It won't be the professor who will teach me. I learn if I study (testimony of 5th grade student - A5).

Comênus (2011), permeating the historical context at the end of the 17th Century, already stated in his writings that professors should be concerned with teaching less and students with studying more. It was thought of a more autonomous study in which the role of the professor would be the instigator and facilitator of the practice of thinking. The autonomy process is brought to the students' impressions as a constructive process:

And precisely, this is a positive point that forces the student to pursue this and is what we will really face in life, in practice; I will be alone outside (A8).

From this perspective of confronting in professional life, the student begins to reflect on what is his role in the teaching and learning process and passes to be the promoter of his knowledge by means of the problematizations. For Sen (2010) there is no development without the individual being the center of this process. Thus, the problematizing practice must be carried out in a dialogical manner, in opposition to the traditional concept of education, in which the transfer of information from the professor to the student predominates. According to Freire (1980), problematizing is the action that the educator launches to students so that they are able to seek and reflect on aspects of reality that they had not critically perceived.

Following is the speech of student A2 who reaffirms Freire's idea (1980):

We have a more critical look... when we have this active methodology... we have to force ourselves to have a more critical look at everything. We have many critical discussions here in the course; it is... humanization thinking in all classes. I do not know if this is an orientation of the coordination, but the professors take a lot from us (A2).

The statement above shows what is foreseen in the Pedagogical Political Project of the UFMA Medicine course, in Item - 7.2.2, graduate profile, 2017, p.57:

At the end of this phase of the course, the student must be prepared for medical care at the three levels of health care for children and adolescents, women's health, adult health, elderly health, and collective health/general family and community medicine, in outpatient and hospital activities, stimulating the students' initiative and their progressive autonomy, always with continuous teaching supervision.

The PPC for the Medical course is based on the Law of Directives and Bases of National Education that governs Higher Education in Brazil and proposes in Art. 43, p.34, that it is necessary "to stimulate cultural creation and the development of the scientific spirit and the reflective thinking" (BRASIL, 1996, p. 34).

It is also in line with Brazil (2014, p.1) when it instituted the National Curricular Guidelines for the Medicine course in its Art. 3 "The graduate in Medicine will have general, humanistic, critical, reflexive and ethical training...". Thus, opportunities for meaningful learning become real in the moment the student is motivated and feels part of the training process, with authority and responsibility in their training. The students become more autonomous in the educational process through the PBL, it prepares them to become apprentices for life (RIBEIRO, 2010).

Students reports that when advancing in the period of the course, they learn to select the best content and to focus on what should study:

For sure! So, if at the beginning we felt insecure with certain difficulties to be able to learn how to learn, over time as you acquire this skill, as you acquire this autonomy and manage to identify the means to acquire the their knowledge (A10).

Speech reflection (A10) can be done with the studies published by Kjaersdam and Enemark (1994): after graduating, undergraduates have more refined skills to solve problems, dialogue with other professionals and face unknown problems in the future. What is in line with Dallabrida (2015) to the states the open debate and the exchange of ideas between professionals and entrepreneurs encourages communication, helps to think of projects and increase the economy.

It is also evident that, at the beginning of the course, students feel a little insecure and, with the passing of periods, they become qualified to analyze, solve new problems and become familiar with areas never studied, relating them to practical problems, ensuring, thus, the principle of autonomy in which the student is able to solve problems in the future unknown. Therefore, "it is important to highlight that it is not a chat or a tactic for making friends or a method, a technique for obtaining results. The dialogical relationship is consolidated in the transformative social praxis" (RAMACCIOTTI, 2010, p. 26).

In this sense, students point out initial difficulties in recognizing and planning studies:

Yeah ... you have this discernment that you need to dedicate time that you need to go after it sometimes seems very easy, but when it is put into practice it becomes a little difficult. So, we need to learn to be mature, we need to learn to have responsibility (A11).

The understanding of students on the process of autonomy and the development of learning how to learn features speeches demonstrating insecurity in the initial stages of the course, but over time, that is, the evolution of periods, the students begin to acquire the security and ability to be the protagonists of their teaching and learning, understanding the need to develop this skill to work in medical practice.

It is worth highlighting an excerpt from the interview with the coordinator of the medical course, when asked about the student's autonomy process:

I think that active methodology is a double-edged sword, because not every student is prepared to be autonomous, sometimes there are students (SIC) who have spent their entire lives, let's say, being passive, you know... the person used to tell him to study, and he studied what the someone said and that's it... And when the student finds himself in the position of him who defines what he is going to study, how he is going to study, there are students who are not prepared for it! Sometimes, I feel that it is too much autonomy, for those who never had any (C).

It is notable in the speech of the course coordinator an observation in the process of development of autonomy, as there are students with the development of this skill reduced, thus, the active model can become conflicting, frustrating and stressful for some students. Although it is recognized by students that the process of the ability to learn how to learn is gradual and that they can evolve over time, there are reports of possible weaknesses in the adaptive process.

According to Benson (2000), the development of autonomy in the learning process is based on characteristics already brought by the students, arising from situations experienced previously. In order to achieve this objective, the professor needs to act as a support in order to reactivate them with a focus on processes, concepts and the control of the progress of the learning itself.

Based on Bloom (1956), a classical learning theorist, and Dallabrida (2015), with regard to social and cultural development, autonomy is not a property of the student, but a skill derived from his social and cultural capital, the result of contexts experienced and opportunities to develop the level of deepening learning. Thus, during the application of the PBL, the tutor must value the free expression of previous knowledge and experiences of the student so that the knowledge built becomes meaningful.

In this perspective, the theory of Triple Helix, based in the study of Etzkowitz (2010), founded this discussion, still permeated by authors who address the teaching and service issue, as Albuquerque *et al.* (2008), Panúncio-Pinto; Rodrigues; Fiorati (2015) and Tsuji and Silva (2004).

The analysis demonstrates that the perception of the student emphasizes the importance of this early contact with the fields of practice. Asked about their insertion in the practice fields, since

the initial periods of the course, students are unanimous in reporting that this practical experience makes them useful and that these moments of interaction become exciting, refreshing and applicable:

[...]For me it is a very moment ... how can I say? Refreshing! (A6)".

[...]And the earlier this contact, the more effective for the education process, I experienced it in practice! (A11).

The teaching and service integration comprises a collective work, agreed and composed by the social players: professors, students, health professionals and public health managers (ALBUQUERQUE *et al*, 2008). The importance of teaching and service and community integration is emphasized, with a focus on services provided within the scope of collective health, on the quality of professional training and on the sharing of duties of health service workers.

It was found in this study that students, inserted in the practice scenarios, feel more motivated, as they remember and apply knowledge acquired from previous studies, which is explained in the speech of student A1: "One thing is we see how the theory is at SUS and another thing is we see how it is in practice at Basic Health Unit (UBS) "(A1).

The Higher Education allied to health services promotes a knowledge model that allows students to develop skills (social, emotional, motor and cognitive) and professional attitudes appropriate to the need of the professional profile, the curriculum and the community. "[...] the public services that integrate the SUS must be a field of practice for teaching and research [...]", integrating the HEI and SUS, aiming to increase the quality of the service provided to the population with an emphasis on the exchange of information experience (PANÚNCIO-PINTO; RODRIGUES; FIORATI, 2015, p. 262).

Final considerations

The research conducted met the goals in the objectives in relation to the assessment of student perceptions, professor and coordinator for the use of active methodology and student leadership.

A documentary analysis was carried out and it was verified that the PPC of the UFMA Medical course is described according to the regulations of the National Curricular Guidelines of 2014, meeting the needs of the profile of the future graduate, considering the development of skills and competences with emphasis on health care, decision making, communication, leadership, administration, not the management and continuing education - factors that favor the professional training with necessary skills to operate in health services and care to the community.

The reports of the professors revealed that there is a good relationship with the agreed fields of practice, as they believe that this integration is necessary since the initial periods of the course, favoring the student a more practical application of the studied content, reduction of anxiety and greater humanization with the patients and community. However, there are difficulties in recognizing the role of preceptor and distribution of practice fields seen that share space with four other schools located in the Imperatriz.

The results point out that according to the perception of the student, the systematic use of PBL methodology makes theoretical and pedagogical actions/more autonomous practices, impacting the training process. As a result, students start to understand the applicability of the study to reality, encouraging action as protagonists in medical practice, emphasizing the internship. We highlight the motivational and organizational role developed in the use of PBL and the development of a critical-reflective professional in the face of real life problems, which revealed to promote the reduction of insecurity and the gain of autonomy during the course to work in medical practice.

The students declare that the integration between teaching and service, from the initial stages of the course, promotes greater security, appropriation, knowledge of reality and of the main problems faced by the community in which they are inserted. This condition makes them capable of acting as protagonists of change in the public health scenario. Professors reinforce the idea that this insertion of students in the fields of practice and internship favors the development of management, communication and greater knowledge of reality. This knowledge of the reality, problems and potentialities of the area in which they are inserted harmonize with what the National Curricular Guidelines advocate.

The articulation of the players' speeches, in the analysis, showed an alignment of the application and use of the method with what is recommended by the DCN of the medical course,

since the academics develop skills and competences necessary to work in the labor market. However, the method is also aimed at awakening students' sensitivity to social, cultural and intellectual issues that directly influence regional development. It appears that this tends to occur, since the PBL seeks to instigate, in future doctors who will work in various conditions and scenarios related to public health, the search for professional improvement, knowledge of social reality and approximation and integration with communities.

It is worth noting that this study undertook an analysis of the use of PBL with medical students from UFMA still in progress, since the completion of the first class was scheduled for 2020. With the emergence of the COVID-19 pandemic, the last class of the Medicine had a special degree to act as doctors in the SUS, in Imperatriz, contributing directly to regional development.

The research finally allowed to verify the overall vision of the University as a training institution, its important role in promoting education of quality, acting thus as a facilitator of regional development. Education is one of the pillars so that the individual can empower himself, making him able to interact and strengthen social capital networks, prioritizing regional development. In addition, an effective and efficient education, committed to social reality and the personal improvement of students is an essential tool to build a more humane and transformative society.

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