Teaching-service-community integration in practice scenarios of interdisciplinary Health Education: an experience of the Work Education for Health Program (PET-Health) in Southern Bahia

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The proposal of the PET-Health program program, at the Federal University of Southern Bahia (UFSB) and municipal health secretariats, addresses relationships among academic, professional and popular knowledge and practices, developing a critical and reflexive conduct in the formulation of problems based on concrete demands of communities through teamwork, and strengthening integration between the university and the healthcare network.

The objective of this study was to report the PET-Health program experience in an interdisciplinary health undergraduate course at the UFSB, in Porto Seguro, state of Bahia, between May 2016 and March 2017. It considered the importance of the teaching-learning process associated with practice settings in health education. The reported experiences were oriented by the research-action principles in the formulation of participatory diagnoses of the Brazilian health situation to promote changes in the social and health context and in the discussion of the social relevance of teaching in the education process for professional practice.

**Keywords:** Primary care. Continuing education. Professional training. Integration.

**Introduction**

The National Policy for Permanent Health Education, launched by Brazil’s Ministry of Health by means of Directive no. 198, of February 2004\(^{1}\), and implemented by Directive no. 1996, of August 20, 2007\(^{2}\), regulates the education and development of health workers considering regional specificities and aiming to overcome regional inequalities, based on the problematization of reality. Permanent Education emphasizes interprofessional education and teamwork as challenges to the consolidation of Brazil’s National Healthcare System (SUS)\(^{3}\), based on the realities experienced by the actors involved.

Interprofessional education, in turn, is an essential element to the implementation of Permanent Education and has been used as a teaching strategy to educate critical and reflective professionals who are able to work in a team and, at the same time, to respond to social needs. The principles of interprofessional education apply to permanent education and constitute a challenge to the construction of new technologies for working at the SUS. These changes must aim to articulate theory and practice and integrate teaching and learning, influencing the education of the new health professionals\(^{4,5,6}\).
It is important to highlight that practice must require a posture of problematization of what has been lived, observed and discussed, and the student “must assume the role of subject in the learning process” (p.25). The basis of this strategy is the type of learning that problematizes, included in a critical way in the social routines and in a reflective way with students, “based on knowledge production to answer questions belonging to the universe of experiences of those who learn and to generate new questions about being and acting in the world” (p.1). This is why it is important to integrate these themes and debate the social relevance of teaching and the articulations of education with changes in professional practice.

The Program of Education through Work for the Area of Health (PET-Saúde) is regulated by the Interministerial Directive no. 1802 (Ministry of Health/ Ministry of Education), published on August 26, 2008. It is a policy that guides professional education in the area of health and is targeted at the population’s needs and at the strengthening of strategic areas to the SUS. It accomplishes this by expanding processes of change affecting undergraduate health programs, professional practice and the care that is provided to users, focusing on the teaching-service-community integration. PET-Saúde enables students to work in the organizational structure of public and community health, and it also allows them to re-discuss interventions on reality. Thus, with the early inclusion of students in the health services, professionals in the local Healthcare Network are able to guide and supervise undergraduate students, having the public health service as the scenario of shared practices and knowledge.

In this perspective, Universidade Federal do Sul da Bahia (UFSB), the newest Brazilian federal university, has the mission of stimulating social development, both locally and regionally. Thus, it understands university extension as a permanent process of construction of dialogs that value knowledge and practices which are part of the symbolic universe of the territory in which it is included. The emphasis on the principle of inseparability among teaching, research and extension will require new development strategies of academic activities to promote the interlocution among multiple types of knowledge, based on an intercultural perspective.

Higher education institutions’ social commitment contributes to the joint construction of extension and/or research projects by professionals, communities and students, in proposals that strengthen professional education, meet the SUS principles and allow students’ early inclusion in territories and realities related to the networks of health services. This experience favors comprehensive education and prepares graduates to professional work. UFSB understands its social role and responsibility for the high-quality education of its students. Therefore, it has embraced the proposal of the Program of Education through Work for the Area of Health (PET-Saúde GraduaSUS) in partnership with the Municipal Health Department of the city of Porto Seguro. This relationship allows a construction grounded on the principles of the “ecology of knowledge”, which values dialogs among scientific, humanistic, popular and traditional knowledge.

The educational process in BI-Saúde
The Interdisciplinary Bachelor’s Degree in Health Sciences (BI-Saúde) of UFSB aims to educate students to be fully aware of their role as citizens, included in a context of structural and functional health challenges that cannot be postponed, and committed to the improvement in the population’s health and to the SUS principles. The focus of students’ learning and experiences is the South Region of the state of Bahia (Northeastern Brazil), with its ethnic, social, economic and cultural diversity.

The curricular organization of BI-Saúde is articulated on an inter-transdisciplinary and integrative basis constituted of many levels of dialog that overlap and are aligned with the social, political and subjective productions of social health agents. It prioritizes and respects subjects’ cultural matrices in the regional reality, and considers their pertinence and assertiveness, as well as their deadlocks and contradictions.

BI-Saúde fills an important gap regarding interdisciplinary, humanistic, artistic and scientific education in the field of health, based on a new model of higher education. This model opens possibilities of change in the preparation of the health professional and enables transformations in the field of practices. The process is grounded on a regime of cycles that amplifies students’ possibilities of contact with the health practices. One example are the curriculum components of the Thematic Block of Integrated Health Practices - Analysis of a Health Situation and Integrated Practices of Health Promotion and Surveillance.

The basis of the curricular structure is formed by the flexibility of the flow, pedagogical plurality, and interdisciplinary recycling and connection. The aim is that students construct their autonomy in the pedagogical process using active learning methodologies. This model offers the possibility of different academic trajectories, that is, flexible routes that can be constructed and systematized by the student, provided that the minimum requisites for the completion of the Bachelor’s Degree are met.

The program is divided into two stages: General Education and Specific Education. The General Education stage corresponds to the first three four-month periods of the program and aims at the development of skills and competences that enable a pertinent and critical understanding of the regional, national and global reality. The objective of this stage is to promote new students’ process of affiliation to the University, taking into account their cultural and ethnical multiplicity and different school trajectories. This period is composed of curriculum components that approach themes that structure university education, like abstract reasoning, Portuguese language, English language and their technologies, as well as curriculum components from the areas of Humanities and Art, which introduce students to an education that focuses on interdisciplinarity.

The Specific Education stage in BI-Saúde happens in the second and third years of the course. It is organized around an obligatory Common Nucleus whose center are health practices based on the territorialization process, on the analysis of the health situation, and on the planning, performance and evaluation of relevant interventions to the community and health services. In addition to this obligatory common axis, students can construct their academic trajectory in a flexible way, depending on their choices, either to the second cycle (vocational health courses) or to the third cycle (postgraduate courses).
PET-Saúde and its articulation with BI-Saúde

In 2016, the announcement of PET-Saúde/GraduaSUS, published by the Ministry of Health, offered an ideal scenario for the construction of the field of practices of BI-Saúde in the territories of the South of Bahia in articulation with the local network of health services. The proposal is aligned with the new National Curriculum Guidelines and with the collective construction of Pedagogical Projects for Courses, which emphasize active teaching and learning methodologies, interdisciplinarity and teamwork. Targeted at the area of primary care, it integrates teaching, service and the community, and involves students in a broad survey of the health conditions of the Extreme South of Bahia. This is performed by searching the available data sources in the national health information systems of the SUS, and by constructing a participatory diagnosis of the health situation that encompasses social, cultural, economic, environmental, physical and political aspects of the territory.

PET-Saúde GraduaSUS is an instrument to qualify preceptors/health professionals and to promote the work initiation of students from undergraduate health programs. The project of PET-Saúde in the Extreme South of Bahia aims to qualify processes of teaching-service-community integration in order to strengthen the articulation with the SUS, contributing to the movement of change in learning scenarios of undergraduate health programs, in consonance with the National Curriculum Guidelines.

As it was mentioned above, BI-Saúde is the first cycle of the undergraduate programs, like the medicine one, which has already been approved by the Ministry of Education. This first cycle allows students to get acquainted, in a gradual way, with the city’s primary care network, valuing the popular and community knowledge that is present in the territory. The teaching-service integration is essential to strengthen the permanent education policy by means of the action of higher education institutions and professionals of the health network in the academic supervision of the activities performed by students. In this scenario, PET-Saúde is a very important strategy in the education of human resources to the SUS.

It is in this context that our study aims to report the experience of PET-Saúde GraduaSUS in the BI-Saúde of UFSB, providing a critical reflection on the importance of the teaching-learning process connected with scenarios of practices in health education. This is a pioneering experience in an Interdisciplinary Bachelor’s Degree in Health Sciences and this report corresponds to the period between May 2016 and May 2017, the first year of PET-Saúde in the city of Porto Seguro, state of Bahia.

PET-Saúde GraduaSUS UFSB/Municipal Health System

Having, as its main challenge, the situational diagnosis in the scenarios of practices and territories of the city of Porto Seguro, the study enabled, in its first stage, to identify the community’s health and care conditions. In addition, it enabled to conduct a critical analysis and to consolidate
scientific knowledge about the health/disease process, adding knowledge and practices to the regional development.

What was intended with the analysis and diagnosis of the population’s health situation, in this first moment of PET-Saúde’s action, was to investigate the scenarios of practices, the Family Health Strategy, the catchment area, the economic, demographic and epidemiological profile, the population’s ways of living and getting ill in the territories, the existing resources, health equipment, and the social and community-based support network. It is important to highlight that the recognition of the territory is necessary to characterize the population and its health problems, as well as the services’ impact on the population’s health levels.\textsuperscript{15,16}

Health, in turn, also results from the organization of daily life, from sociability, affectivity, subjectivity, culture, leisure and from relationships to the environment and territory. This dynamic territory under permanent construction\textsuperscript{17} is the support for the organization of shared practices and action in health (teaching-service-community), the place where actions are planned and the health services are organized (Community Agent, Family Health Strategy, Family Health Support Nucleus), and also the support for community life (school, commerce, leisure).

PET-Saúde GraduaSUS UFSB/Municipal Health System, aiming to contribute to changes in students’ education in the field of health, meets the need, at the same time, of incorporating experience and knowledge exchange, based on the teaching-learning process, into the curriculum components related to the Integrated Health Practices. In the PET, students participate in Active Learning Teams, which also include tutors and preceptors. They go to the communities and their territories, get involved in the difficulties and challenges experienced by the population and reflect, in their own practice and in group discussions, on possibilities to intervene and overcome problems.

**Active participation in the analysis of a health situation**

The methodological framework for the PET-Saúde experience were the principles of action research, especially the importance given to subjects playing the leading role in social transformation processes.\textsuperscript{18} This methodology is relevant in a teaching-learning process that takes the territory as the reference to health education and emphasizes reflection on the experienced practice, with the purpose of interacting and proposing changes in a given social, cultural and health context, in dialog with the subjects who inhabit it.\textsuperscript{15,16} This didactic strategy implies that new challenges have to be faced, like the construction of an integrated curriculum in which the axis of education articulates practice, work and care.\textsuperscript{19,20}

Action research has contributed to the construction of a participatory diagnosis of the health situation in the city of Porto Seguro that aimed to identify both the problems and potentialities of the territories, with the active participation of the community and professionals from the health services. The diagnosis serves as a basis to prioritize problems and plan, in a joint way, actions to solve them, in order to transform the observed realities by understanding them and through the commitment to the subjects involved in the process.\textsuperscript{21}
Action research is articulated with active methodologies, which are supported by the significant theoretical principle of autonomy, present in the discussions and works of the educator Paulo Freire. According to Freire, the fundamental moment of education is that of critical reflection on practice: “the more [...] I assume [critical reflection on practice], the more capable I become of changing and advancing, in this case, from the state of naïve curiosity to that of epistemological curiosity” (p. 45).

As it considers itself education towards autonomy, health education at UFSB wants to contribute to promote changes in the professional profile in the field of health and to improve the program’s curricular structure, with students’ active participation. Thus, the promotion of moments of discussion and reflection with students in PET-Saúde contributed to the evaluation of the curricular structures of the Pedagogical Project. In the present proposal, the work was organized based on three groups divided according to the structure of the Primary Care network of the city of Porto Seguro, with the aim of analyzing the health situation and constructing the community-teaching-service relationship in the elected territories.

The information is being organized by stages, based on a script: a) characterization of the territory and of the population in general; b) characterization of the population’s epidemiological profile; c) structure of the Health Services Network in the territory; d) characterization of the institutional and social support network.

Students collected data to learn about the catchment area by means of home visits and by mapping the region with the Family Health Strategy teams, key informants of the community, and Community Agents. Furthermore, secondary data were collected in the health services, using the official information systems - Mortality Information System (SIM), Live Births Information System (SINASC), National Register of Health Facilities (CNES), and Information System for Notifiable Diseases (SINAN).

**Paths trod in the territory**

During the first months of the activities of PET-Saúde in Porto Seguro, knowledge and experiences were shared in the scenarios of practice and changes were proposed to the curriculum components of integrated health practices during the situation analysis and mapping of the territory. It is important to highlight the subjective implication and the leading role played by students while sharing “socially constructed knowledge” in the community practice for pedagogical and social processes of change. It is in this sense that Paulo Freire values learning based on experience and autonomy:

“Why shouldn’t we use students’ experience of living in areas of the city forgotten by the government to discuss, for example, pollution of creeks and streams and populations’ low levels of wellbeing, dumps and the risks they offer to the health of individuals?” (p. 16).
Therefore, following Paulo Freire’s orientations about learning based on experience and autonomy, the concrete reality of the studied territories was discussed, associated with the curriculum components, establishing “intimacy” between scientific knowledge and social experience.

**The territory and its specificities**

The territory is characterized by historical, environmental, economic and social situations that promote conditions for the production of the health-disease process. In order to know this territory, it is fundamental to analyze the health situation and construct a participatory diagnosis involving different actors, identifying living conditions, health needs, collective risks and potentialities, with the objective of developing intervention plans to meet the community’s needs. Furthermore, the analysis of the health situation is important for the strategic planning of surveillance actions and for health education and communication actions.

In light of this, it was possible to perform territorialization and obtain information on the real life conditions and health situation of the population, taking into account the interrelation among different elements: social, economic, cultural, environmental, structural and demographic, as well as modes of production and social reproduction, which have a direct or indirect influence on the dynamics of the health-disease process of individuals and the collectivity. Understanding the health-disease process as resulting from housing, food, education, income, environment, work, transport, employment, leisure, freedom, access to and ownership of land, and access to health services, unveils health and disease as social productions that can undergo action and transformation.

The work in the healthcare networks of Porto Seguro created opportunities to rethink health-disease conceptions, care and teamwork in the curriculum components of the practices of BI-Saúde, and favored students’ contact with the local reality and interventions that take into account the population’s ways of life.

**Challenges in the education of health professionals for the SUS**

In this entire process, there were some challenges deriving from the articulation between Pet-Saúde GraduaSUS as a public policy and a teaching-service-community integration practice and the particularities of the pedagogical project of UFSB in the health education it proposes - a model of education of qualified human resources that are ethically responsible, socially committed, oriented towards the community, with emphasis on technological competences, and focused on the quality of healthcare.

The first issue to be considered regards the public policy that develops the teaching-service-community relationship in the context of vocational courses, such as medicine, nursing or psychology, which have traditionally had discipline approaches to the problems identified in the territories. Unlike this
approach, the present experience is characterized by the singularity of a Bachelor’s degree that prioritizes the interdisciplinary perspective in the analysis of the health situation. Despite the difficulty mentioned above, interdisciplinary education intensifies the development of a sensitive knowledge of different health determinants that does not focus only on the techniques, theories and procedures of each profession.

The second issue is related to the process of health work and to the need of valuing teamwork. Traditional programs educate subjects with little understanding of the need to work in multiprofessional teams and of the importance of sharing knowledge and practices. In this aspect, the experience of PET-Saúde with BI-Saúde students is characterized by the importance that is given to different types of professional knowledge and their role in care processes, and also to an active and critical hearing. In addition, it recognizes the usefulness of participatory methodologies that prioritize collective construction, co-responsibility and democratic dialog in the spaces of discussion of health policies and practices. All this work implies challenges that are also related to the model of education by cycles, in which there is no guarantee that students will proceed to the vocational course they desire. This situation brings tensions deriving from the competitiveness that emerges among students themselves, representing obstacles to be faced in the daily routine of collaboration in work groups. In fact, this “little understanding of the need to work in multiprofessional teams” has its roots and is reproduced in the formal education system and in the ideological education process of technical and professional personnel in the area of health.

Additionally, although the first education cycle at UFSB is characterized by interdisciplinarity, the representation of the social value associated with graduation in medicine makes this program be the most chosen one since the first education cycle, to the detriment of other healthcare areas in which there is shortage of professionals in the healthcare networks. Thus, PET-Saúde favors the formation of strong bonds between students and primary care, a respectful and critical attitude towards distinct functions and roles in the interdisciplinary teams, and contact with other health professionals’ knowledge and practices.

In the daily academic dynamics, the reported situation produces a strong competition among students who intend to advance to the second education cycle - medicine, psychology, collective health. This is one of the challenges faced in the process of formation and development of active learning teams and it must be further investigated in the Pedagogical Project of the Bachelor’s Degree in Health Sciences and in future research and/or extension works. In the current scenario, PET-Saúde is an excellent strategy to develop solidarity and collaborative working practices, around a common objective, that contribute to improve health in the territory, change teaching-learning practices, and implement the project of UFSB.

The activities developed in the PET-Saúde GraduaSUS UFSB/Municipal Health System in the first year aimed to create interdisciplinary work opportunities articulating the curriculum components of BI-Saúde based on students’ experiences in the territory, by means of a critical and creative dialog with professionals from the health network of Porto Seguro, community agents and the community. Thus, “a circle of knowledge exchanges” in the words of Paulo Freire, was created. In this circle, students learn to listen, speak, respect the other’s ideas and work in a team to understand and, perhaps, contribute to transform the reality of a territory.
Final remarks

In view of the challenge of promoting changes in health education and graduation, health education at UFSB aims to prepare and engage students in experiences that aim to shorten the distance among experiences, knowledge and practices, like PET-Saúde. Students’ and teachers’ experience of the local reality is fundamental to produce the intended change in professional health education, in agreement with the demands and needs of the SUS and of primary care, in order to minimize differences in the quality of care that seriously affect the system’s equity.

Some of the main determinants of the low quality of the care provided by the SUS and of the inequities that persist in the system are the limitations of the systems of production of scientific and technological knowledge and of education of human resources for the area of health. The production mechanisms of these skills and competences lie in the technical-professional education system of these subjects (courses, programs, schools, institutes, universities)\(^1\). According to Paulo Freire, one of the most important tasks of the educational-critical practice is to provide conditions to enable the student, in his relationship with the other, to assume experiences as a social being who transforms and is critical. In the educational experience that is open to transformation, the students from PET-Saúde GraduaSUS UFSB/Municipal Health System exercised their capacity to reflect and learn by doing, becoming subjects and not only the object of the process.

The active learning process and the methodological approach of action research enable knowledge construction in a cumulative way, valuing the previous knowledge of the population, of health professionals from Family Health Units and of students. PET-Saúde has been fulfilling the proposed objectives in this first stage of the work, with the partnership of the Municipal Health System of Porto Seguro and the effective participation of group coordinators, tutors and preceptors.

Collaborators

All the authors participated actively in the conception of the project, in the writing of the article, in the discussion of the results, and in the review and approval of the article’s final version.

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