The use of popular health education as a strategy to control dengue: PET-Saúde inducing new health training practices

El uso de la educación popular en salud como estrategia para el control del dengue: PET-Saúde induce nuevas prácticas de capacitación en salud

O uso da educação popular em saúde como estratégia para o controle da dengue: PET-Saúde induzindo novas práticas de formação em saúde

ABSTRACT
It was an experience report from the PET-Saúde project whose object of intervention was the development of popular health education practices for dengue prevention and control actions, with the setting of the Local Health Councils (CLS). The purpose of this study is to describe the experience and its contribution to the process of training future health professionals. The activities were developed during 2014 and in the end 19 CLS were visited. It identified a limitation in the participation of users in instances of social control; the need to (re) signify popular health education practices; and the importance of intensifying the teaching-service-community articulation based on experiences based on new pedagogical approaches, as a way to enable the construction of learning that enables the critical exercise of health work.

DESCRIPTORS: Health Education; Dengue; Health Training.

RESUMEN
Se trata de un relato experiencia del proyecto PET-Saúde, cuyo objeto de intervención fue el desarrollo de prácticas de educación popular en salud para acciones de prevención y control del dengue, teniendo como escenarios los Consejos Locales de Salud (CLS). El objetivo de este estudio es describir la experiencia y su contribución al proceso de formación de los futuros profesionales de la salud. Las actividades se desarrollaron durante 2014 y al final se visitaron 19 CLS. Se identificó una limitación en la participación de los usuarios en las instancias de control social; la necesidad de (re) significar las prácticas de educación popular en salud; y la importancia de intensificar la articulación enseñanza-servicio-comunidad a partir de experiencias basadas en nuevos enfoques pedagógicos, como una forma para permitir una construcción del aprendizaje que permita el ejercicio crítico del trabajo en salud.

DESCRIPTORES: Educación en Salud; Dengue; Capacitación en Salud.

RESUMO
Tratou-se de um relato de experiência vivenciado no projeto PET-Saúde cujo objeto de intervenção foi o desenvolvimento de práticas de educação popular em saúde para ações de prevenção e controle da dengue, tendo como cenário os Conselhos Locais de Saúde (CLS). O objetivo desse estudo é descrever a experiência e a sua contribuição para o processo de formação dos futuros profissionais de saúde. As atividades foram desenvolvidas durante o ano de 2014 e ao final foram visitados 19 CLS. Identificou limitação na participação dos usuários nas instâncias de controle social; a necessidade de (re) significar as práticas de educação popular em saúde; e a importância de se intensificar a articulação ensino-serviço-comunidade a partir de experiências pautadas em novas abordagens pedagógicas, como forma de possibilitar a construção da aprendizagem que possibilite o exercício crítico do trabalho em saúde.

DESCRITORES: Educação em Saúde; Dengue; Formação em Saúde.

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INTRODUCTION

Popular health education was the theoretical contribution that outlined the development of the action that will be presented in the present study from actions emanating from the Education through Work for Health Program (PET-Saúde). Popular health education as a method has as a starting point in the pedagogical process, the valorization of the student’s previous knowledge based on their life experiences. In the struggle for survival and for the transformation of reality, people acquire knowledge about their insertion in society and nature. Such fragmented and poorly elaborated knowledge is the raw material of Popular Education. Thus, the valorization of knowledge and values of the subject favor the initiative and participation of the student in the process of social construction of knowledge(12).

PET-Saúde was instituted by the Ministry of Health and Ministry of Education in 2008, with the central axis of strengthening integration between Higher Education Institutions (HEIs) and public health services. It proposes to reorient the process of training new health professionals to work within the scope of the Unified Health System (SUS), to meet the real health needs of the Brazilian population. It also seeks to encourage permanent education practices with the qualification of workers who are inserted in the different scenarios of public health services and, at the same time, offer health care to users of services according to the principles and guidelines that should guide the education processes of health teams work(3,4).

This work deals with an experience report from the operationalization of a university extension project carried out through PET-Saúde, “Conquest against Dengue: Prevention and monitoring of Dengue”, whose object of intervention was the development of educational practices popular in health for dengue prevention and control actions, based on the Local Health Councils (CLS).

Dengue persists as a public health problem, and the virus infection may or may not be asymptomatic. When symptomatic, it causes a systemic and dynamic disease, with a clinical picture ranging from forms with mild symptoms to severe ones, which can progress to death(5,6). Its high transmissibility may be associated, among other factors, with people’s lack of commitment to the behavioral changes necessary for their control, an issue that pervades educational health practices(6).

Some researchers have looked into the context surrounding the development of educational practices as an important strategy for the prevention and control of the disease in the country(7-10). Health education can be considered as an important tool in the process of deconstructing subjects’ practices, with the possibility of changing attitudes and consequently recognizing the need to adopt measures for the prevention and control of the disease(11).

In this context, popular health education was taken as a central element for the development of the activities of the extension project with the community, through meetings of the local health councils. Popular education aims to pedagogically work the man and the groups involved with the popular participation process. Enables the construction of collective forms of learning effectively, which allow a critical analysis of reality with consequent reflection on practices and
improvement of strategies for fighting and coping with problems\(^{[1,12]}\).

Considering the relevance of the work developed by PET-Saúde based on educational practices, we opted for a theoretical framework that would enable the social construction of knowledge (students-teachers-workers-users). In this sense, the notions of popular health education were associated with Freire’s pedagogy of autonomy\(^{[13]}\). From this perspective, the scenarios of the dengue control and prevention actions were defined as the scenarios of the local health councils in the municipality of Vitória da Conquista, Bahia.

The CLS were regulated by Law No. 8,142/90 and Resolution No. 333/2003 of the National Health Council (CNS) as a way to expand the communication process between users and health units in a given location\(^{[11,13]}\). The CLS are limited to the area covered by a given health unit, with the aim of discussing and defining with the local community the main health problems, their forms of intervention and the participation of the community. There are important strategies that health management has to encourage community mobilization, in order to expand the involvement of society with local health problems, as well as permeate the sharing of knowledge and power in the production of health\(^{[16]}\).

The CLS are noteworthy for favoring community participation, mainly because they are close to the population, inserted in the strategic space of Primary Health Care. The use of local councils as spaces for health production, in the perspective of popular health education, can cooperate to qualify local dengue control initiatives, since council spaces should be seen as plural spaces to legitimize another conception of health, to promote dialogue and affirm the popular\(^{[17]}\).

Thus, the CLS were chosen as spaces to produce knowledge about the prevention and control of dengue, considering that its composition includes the participation of users who exercise leadership in the community. It is believed that the sensitization of these subjects, a priori considered proactive, will allow greater mobilization of the local community, in order to broaden the understanding of the dengue problem, enabling reflection on their practices and contributing to the control of the disease.

Based on the considerations presented, the question arises: How can popular health education practices contribute to the control of dengue and to the process of training new health professionals? This report intends to describe the experience of popular health education actions in local health councils for the prevention and control of dengue and its contribution to the process of training future health professionals.

**METHODOLOGY**

This experience was developed in the semi-arid region of the Northeast, in the municipality of Vitória da Conquista located in the Southwest region of the State of Bahia, 503 km from Salvador. It has a population of 338,885 inhabitants, being the third largest municipality in the state\(^{[18]}\). The municipality is organized in 11 districts, is the headquarters of the Health Macro-Region of Southwest Bahia, and is located at the junctions of several highways, which makes it a pole of attraction for about 80 municipalities in the surrounding regions, including the North of Minas Gerais\(^{[19]}\).

Vitória da Conquista stands out in the State and in the Northeast Region due to the advances of the municipal SUS, since the end of the 90s with the process of municipalization of health, and has been a reference for carrying out several studies in the area of Public Health\(^{[20,24]}\). The municipal health management instituted a social control coordination with the objective of accompanying, advising, and monitoring the performance of the municipal health council and the local health councils. By the year 2014, 39 local councils had been formalized, present in all health units in the municipality, made up of representatives of health unit professionals and service users, respecting the parity of representations.

The PET-Saúde university research and extension project, with the research line “Conquest against Dengue: Prevention and monitoring of Dengue”, recognizing the importance of popular mobilization for dengue control, defined as the locus of work for the practices of popular health education, the CLS discussion spaces. The working method was based on the assumptions made by Paulo Freire\(^{[13]}\) whose core focuses on the relational articulation that is established between popular knowledge and academic knowledge.

Therefore, Freire’s pedagogy of autonomy\(^{[13]}\) was taken as a theoretical reference which proposes the construction of the teaching-learning process based on a relationship of respect for the autonomy of the person being educated, thus respecting the autonomy and dignity of each one is an ethical imperative. The human being’s ability to learn stems from his ability to grasp the substantivity of the learned object\(^{[13]}\).

**EXPERIENCE REPORT**

Aiming at carrying out the activities, it was necessary to previously establish an intra-sectoral articulation within the Municipal Health Secretariat. The articulation between the sectors of Epidemiological Surveillance, Coordination of Primary Health Care and Municipal Coordination of Social Control was carried out so that the PET-Saúde project could achieve include the theme “popular education and dengue control” on the agenda of CLS meetings.

The activities of popular education in health were carried out from January to December 2014, by a tutorial group composed of 5 students of the Undergraduate Course in Biological Sciences, two preceptors who were professionals of the SUS service network (a nurse and a biologist) and an academic tutor, professor at the Federal University of Bahia (UFBA). All activities were planned based on the teaching-service-community
approach and articulation. At the end of the project, 19 CLS were visited, 5 of which were in rural areas, involving the mobilization of 649 participants, including health counselors, health professionals and SUS users.

The meetings lasted approximately 40 minutes, were conducted by students who held conversations, in order to promote the participants’ speech in an attempt to stimulate reflection on the community’s health practices. Popular health education activities were carried out through dialogued expositions on dengue in which the forms of disease transmission were addressed; signs and symptoms; forms of prevention; epidemiology of the disease in the municipality; and the importance of popular mobilization to eliminate possible breeding grounds for mosquito larvae. At the meetings, educational materials were distributed, such as pamphlets, folders, posters, epidemiological bulletins, and newsletters with guidance on symptoms and ways of controlling the disease. At each meeting, the commitment was reinforced for the participants to rethink their practices and become multipliers of knowledge, in order to contribute to the control and elimination of possible outbreaks of dengue breeding in the community.

DISCUSSION

Popular health education as an instrument for the production of subjects’ autonomy from a Freirean perspective

Attempts to promote dengue control in Brazil have persisted over the past few decades. Strategies for disease control have been outlined since the late 1990s with the creation of specific national programs. However, prevention actions for many years were based on actions that prioritized mosquito control activities, such as the use of insecticides. These practices reproduced a model of prevention of a sanitary nature, limited to a model of reproduction of the natural history of the disease, based on the interruption of the reproductive cycle of the vector.

The permanence of the high incidence of the disease with constant growth showed the fragility of the health education processes. Since then, changes in the dengue prevention model have been instituted, incorporating a new preventive approach that involves constant health education practices, strengthening surveillance actions, intersectoral action and popular mobilization.

Expanding the focus of action for dengue prevention measures is a necessity, considering that only sanitary practices and normative and verticalized educational actions do not affect the behavioral changes of the population. Operationalizing dengue control measures requires thinking about health education from a popular, collective, and co-responsible perspective that triggers behavioral changes.

The present experience of university extension was constituted from popular health education practices, from the theoretical framework of Freire’s Pedagogy of Autonomy. In this perspective, popular education is an instrument capable of producing individual and collective behavioral changes, based on the transformation of the subject’s self-perception and the relationships he establishes with his surroundings. In this way, we took advantage of the CLS discussion spaces and developed popular health education practices based on a perspective of dialogical relationship with the community, in order to stimulate their involvement with the solution of collective problems, specifically, dengue. Health education when structured in a dialogical, emancipatory and participatory perspective promotes the empowerment of the individual/community, which enables the promotion of citizenship, social transformation and quality of life.

In this perspective, the contribution of popular education was used for having as a foundation education as a political instrument to achieve awareness and politicization of the actors involved in the educational process (educator and learner); being understood as a cultural action proposal aimed at the search for liberation through the construction of a dialogical and problematizing pedagogical practice.

Although the CLS scenarios are understood as a fertile space for the production of educational practices and conducive to inducing changes, according to the characteristics of its participants, usually with leadership profiles in the community, there was little participation by members in the meetings. A similar result was found in a previous study carried out by Bispo Júnior and Martins in the same scenario as the present experience. The authors evidenced as one of the obstacles to the effectiveness of social control, the lack of interest of the population, identified from the smallest participation and discreet community involvement.

The discreet participation and representativeness of the community in the instances of social control evidenced in this and other studies point to the need to (re) signify representations about popular participation and community involvement, as well as to overcome the health education model based on the pillars of the so-called preventive banking education. Strengthening popular health education practices in a perspective of liberating pedagogy allows to stimulate the interest of service users in learning, encouraging them to become involved and co-responsible for local health problems.

It was noticed with the present experience that the local community did not feel responsible for the problem of dengue, which made it delegate responsibility for controlling the disease to the health department and other sectors, for example, the cleaning service public. Such situation could be verified by the questions, during the meetings, regarding the visit of the endemic agent and the garbage collection.

The importance of intersectoriality for the control of dengue is recognized, through the articulation of several social segments such as health services, education, public cleaning, communication, among others. However, these ac-
tions are organized based on collective spaces, and part of the maintenance of dengue epidemics is related to the large contamination of infected breeding sites remaining inside the homes(10). In this context, the frequent visit of the endemic agent, the regular collection of garbage and the cleaning of public spaces in isolation are not sufficient to reverse the epidemiological profile of dengue, if citizens do not recognize their responsibility in the process of controlling the disease. Therefore, it is essential to invest and insist on carrying out popular health education activities in a libertating perspective, which incite changes in individual behavior and in the involvement of subjects with the surveillance of their actions.

The formation of new collaborating subjects for the construction of SUS

The academic training built at universities has been based on a positivist biological-centered model that proves to be insufficient to meet all the population's health needs. The paradigm of scientific medicine and the Flexnerian Model contributed to the training of professionals with high technical capacity, but with difficulties in identifying health needs that go beyond biological determinism and difficulties in dealing with recurring problems in the community(27,32). Based on this situation, PET-Saúde proposes changes in the model of professional training in health. It seeks to develop in students, competencies that go beyond scientific technical knowledge, appropriating other social, ethical, and communicative skills. It aims to contribute to the training of health professionals who can deal with the complexity of the health problems of the communities.

The present experience report is relevant, since it innovates by involving students in the Biological Sciences Course in the PET-Saúde group. The vast majority of studies and extension projects carried out by PET groups have been developed with students from Health Courses such as Nursing, Medicine, Dentistry and Nutrition, but do not include the Biological Sciences Course(33-38). The choice for the dengue theme favored the inclusion of Biological Sciences students due to the intersection of their areas of knowledge, entomology. Such innovation contributed to the effectiveness of interdisciplinary practices and the production of collective knowledge.

During the project it was possible to move and extrapolate the disciplinary limits and reconstruct new knowledge guided by an optics that goes beyond the disciplinary hierarchy. Associated with this, it was possible to experience the production of knowledge elaborated from the multiplicity of knowledge considered by the subjectivity of those who teach and learn(39).

This experience allowed the students of the Biological Sciences Course to get closer to the area of knowledge of Public Health, which is still little, or nothing discussed in the undergraduate curriculum of this course. The National Curriculum Guidelines (DCN), approved since 2001, establish elements common to the teaching of all graduations in the health area, to contribute to the training of professionals able to understand the production of health care from the integral of assistance(40). As well as, the construction of pedagogical political projects that contemplate, besides technical-scientific knowledge, the ethical-political commitment(41). However, despite the Biological Sciences Course being inserted within the 14 health professions, the course curriculum remain below the discussions on health promotion, health surveillance, health education and principles and guidelines that govern SUS.

During the development of the project “Conquest against Dengue: Prevention and monitoring of Dengue”, Biological Sciences students had the opportunity to study about SUS principles and guidelines, health surveillance, health education and social control, content not included in the curriculum components of the course. In addition, they were able to experience the work routine in the epidemiological and health surveillance services, being accompanied by a biologist tutor who works in the health surveillance of the municipality. This experience made it possible to experience the performance of the biologist in the SUS services and to broaden the view and interest of future professionals in new areas of activity.

The activities of popular health education developed in the CLS and conducted by undergraduate students favored the teaching-service-community articulation, one of the guiding axes of PET-Saúde and guideline of university extension programs. University extension practices should guide the production of knowledge from the confrontation with reality in a dialogical, multiprofessional and socially compromised dynamic. The health training process, developed from extension activities, induces the production of new comprehensive care practices, focused not only on technical skills, but on ethics and social responsibility(42).

Experiencing the planning and execution of popular health education activities allowed the PET tutorial group to develop leadership, communication, teamwork, empathy, qualified listening, agility in the face of unexpected situations and to approach the concrete and dynamic reality of the health services. The health training process cannot be reduced to the process of acquisition, transmission and dissemination of knowledge restricted to the university environment(41). It is imperative to train professionals whose knowledge is consistent with local health needs. The construction of learning in community spaces allows dialogue with the user of health services, which makes the teaching-learning process more productive for the critical exercise of health work.

The training produced from experimentation and the exercise of learning in the workplace implies a pedagogical act that produces senses and meanings of the contents being studied. Knowledge is produced by recalling the memories of actions lived(39).
The training process produced in and by the meeting of people generates bonds and motivates changes in practices based on the recognition of alternatives viewed by the example of the action of the other. The meeting between teachers, students, professionals and users enabled the reconstruction of professional practices and the teaching-learning process, which allows to recognize the limits of learning based on the transmission of unidirectional knowledge. The approximation between the different subjects polarizes the roles of those who teach and learn, and knowledge is not transmitted, but constructed from these relationships.

The multiplicity of these encounters causes changes in the individual understanding of the meaning of the self’s relationship with the world. Once such a process of change has started and the process of knowledge construction has been induced, from a new pedagogical, liberating approach, the subject that existed before the experience is (re) constructed and transformed into another autonomous, critical-reflective and able to contribute to real local health needs.

**CONCLUSION**

The experience of the extension project “Conquest against Dengue: Prevention and monitoring of Dengue” based on popular health education practices carried out at the Local Health Councils showed a potential scenario that can be used for other health promotion practices. However, a limitation in the participation of users and in the representation of the community in the instances of social control was identified. This situation is covered by elements inherent to a socio-historical construction that permeates the representations that people build about the elements that determine and condition the health-disease-care process.

The CLS are still little used spaces that need to be strengthened and recognized as a legitimate scenario for discussions and popular manifestations. The social control bodies can become important partners for the development of actions of relevant social impact, such as dengue control. Such participation spaces need to be better used for the establishment of popular health education practices based on a framework that enables the social construction of knowledge, based on the sharing of knowledge and power in the production of health. It is necessary to (re) signify the health education practices, understanding this as a strategy capable of producing individual and collective behavioral changes, based on the reflection of social practices and responsibilities, using, for that, a liberating pedagogy and dialogical.

The present experience also contributes to discussions about the health training process and highlights the importance of intensifying the teaching-service-community articulation based on experiences based on new pedagogical approaches. The construction of learning based on the relationships established between teachers-students-users-professionals and variations in the practice scenarios enables the critical exercise of health work. The teaching-learning produced in university extension practices enables the training of professionals imbued with skills of an ethical and social nature and, concurrently, able to deal with real and complex health needs.

The results of the present experience affirm the relevance of PET-Saúde as an important strategy to induce changes in the health training model, in the teaching-service-community articulation and in the strengthening of the permanent health education policy. It points to the need for the development of studies that identify and analyze the elements that corroborate the (de) valuation of educational health practices by users, since the teaching-learning process will materialize from the involvement of all participating subjects of the educational process.
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