

Extension activities, health promotion and sustainable development: the experience of a nursing research group

Atividades extensionistas, promoção da saúde e desenvolvimento sustentável: experiência de um grupo de pesquisa em enfermagem

Actividades extensionistas, promoción de la salud y desarrollo sostenible: experiencia de un grupo de investigación en enfermería

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ABSTRACT

Introduction: The university extension activities are a form of interaction between the university and the community, and based on it, different health promotion activities can be developed, as the sustainable development of vulnerable communities for example. **Objective:** To report the experience of a research group in the development of extension activities in nursing for the health promotion and sustainable development of quilombo communities. **Methods:** This is a descriptive, experience report-type study about the extension activities carried out by a nursing research group in Praia Grande, Morere and Monte Alegre communities in the state of Bahia. Participants were individuals of 12-25 years of age, of both genders. **Conclusions:** Among the main results, the sustainable development of communities and the exchange of knowledge between them and the participating undergraduate students can be highlighted.

Keywords: Health Promotion; Sustainable development; Nursing.

RESUMO

Introdução: A extensão universitária é uma forma de interação entre a universidade e a comunidade, e, a partir dela, é possível desenvolver atividades de promoção da saúde, a exemplo do desenvolvimento sustentável de comunidades vulneráveis. **Objetivo:** Relatar a experiência de um grupo de pesquisa no desenvolvimento de atividades de extensão em enfermagem para a promoção da saúde e desenvolvimento sustentável de comunidades quilombolas. **Métodos:** Trata-se de um estudo descritivo, do tipo relato de experiência acerca das atividades de extensão realizadas por um grupo de pesquisa em enfermagem nas comunidades de Praia Grande, Moreré e Monte Alegre, no estado da Bahia. Os participantes foram indivíduos na faixa etária de 12 a 25 anos, de ambos os sexos. **Conclusões:** Dentre os principais resultados, destacam-se o desenvolvimento sustentável das comunidades e a troca de saberes entre estas e os estudantes de graduação participantes.

Palavras-chave: Promoção da Saúde; Desenvolvimento Sustentável; Enfermagem.

RESUMEN

Introducción: La extensión universitaria es una forma de interacción entre la universidad y la comunidad, a partir de la cual es posible desarrollar actividades de promoción de la salud, por ejemplo, el desarrollo sostenible de comunidades vulnerables. **Objetivo:** Relatar la experiencia de un grupo de investigación en el desarrollo de actividades de extensión en enfermería para la promoción de la salud y desarrollo sostenible de comunidades quilombolas. **Métodos:** Estudio descriptivo, del tipo relato de experiencia sobre las actividades de extensión realizadas por este grupo en las comunidades de Praia Grande, Moreré y Monte Alegre, en el estado de Bahia. Los participantes fueron individuos de ambos sexos, con edad entre 12 y 25 años. **Conclusión:** Entre los principales resultados, se destacan el intercambio de saberes entre los estudiantes de graduación y las comunidades y el desarrollo sostenible de los participantes.

Palabras clave: Promoción de la Salud; Desarrollo Sostenible; Enfermería.

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INTRODUCTION

The university extension activities are a form of interaction that must happen between the university and the community in which it is inserted, acting as a permanent bridge between the higher education institute and the society.¹

As part of the Brazilian Federal Constitution of 1988, extension activities constitute a possibility for universities to exercise their didactic, scientific, administrative, financial and asset management autonomy, following the principle of indivisibility of teaching, research and extension, which are the cornerstones of universities.^{2,3}

Although these three basic functions of the university should be equivalent and receive similar treatment by the institutions of higher education, the extension is, in a way, little explored, as the teaching and research activities are most prevalent and, in the case of courses focusing on human care such as nursing, there are also the assistance activities.⁴

Because of this tendency of focus on the biomedical teaching model to the detriment of the multidimensional view, we observe a deficiency in the training of nurses and other health professionals with regard to the multifaceted aspect of care, causing a detachment of the students in relation to political, socio-economic and scientific issues, since the technical knowledge is prioritized. So the professionals are prepared to face the technological challenges, but with little sensitivity to the social use of science, or in other words, with little ability to balance the common sense experience in the feedback of scientific knowledge.⁵

In this perspective, it is essential to develop actions in the community, in order to build new and different knowledge based on the fusion of popular and scientific knowledge,² ensuring the exchange of experiences, involvement with social issues and the development of health promotion actions from an holistic perspective where the different world points of view can be respected.

For this challenge can emerge from the realm of ideas, the realization of broad social impact projects is required, aimed at different audiences and designed to meet the real needs of the target population, using strategies for attracting financial resources and partnerships without hassling the principle of free education or falling in marketing points of view.⁵

The development of extension practices can ensure health promotion activities in the community from engendering actions to achieve sustainable development, which in economically vulnerable areas may represent the diaspora of poverty into accessibility, ensuring health promotion from improving the quality of life. Furthermore, sustainability and social development are closely linked to health and it is essential the use of local natural resources to fight poverty and to promote environmental development and social emancipation from the application of popular knowledge to find solutions to problems faced.^{6,7}

Among the communities characterized as economically and socially vulnerable, although generally favored by natural potential of the area in which they live,⁶ we can point the ones that remained from quilombos. Defined as ethno-racial groups, with presumption of black ancestry, peculiar historical background and with specific territorial relations, this population stratum has an ample African cultural heritage,^{8,9} which indicates the existence of popular knowledge that can be leveraged for the sustainable development of these individuals, especially when socialized with academics from different fields of science, allowing the university to receive positive inflows in the form of feedback through the learning about the knowledge of these communities.¹

Considering the importance of deploying actions for the sustainable development as a way to promote health in vulnerable communities, we share the experience of a nursing research group conducting extension activities in quilombo communities, seeking to disseminate to the academic and scientific community other perspectives on the extension practices than those of health assistance nature usually developed in the course of nursing. Moreover, considering the scarcity of studies on extension activities in nursing focusing on health promotion from sustainable development, this study has unprecedented nature from the scientific point of view, contributing to the strengthening of extension practices in health care area.

This way, the following research question emerged: What is the experience of a research group in the development of nursing extension activities to promote health and sustainable development of quilombo communities?

Given the importance of the subject and the possibility of reflecting on the relationship between education, research and extension, this study aims to report the experience of a research group in the development of nursing extension activities to promote health and sustainable development quilombo communities.

METHODS

This is a descriptive study, of experience report type, referring to the extension activities carried out by a group of nursing research over a period of 10 years, with the goal of promoting health and sustainable development in vulnerable communities through the implementation of social technologies (Figure 1).

The study was conducted in the communities of Praia Grande (Maré Island), Moreré and Vila Monte Alegre (Boipeba Island). Approximately 900 (500, 300 and 100, respectively) adolescents and young adults of 12-25 years of age of both genders participated in the study. As for the students, about 400 undergraduate students from different areas of education (nursing, engineering, architecture, nursing, law and psychology) as fellows and volunteers, and also 4 teachers, joined the project.

Figure 1. Extension project script. Brazil, 2016.

		FEDERAL UNIVERSITY OF BAHIA UNIVERSITY EXTENSION PRO RECTORY <i>Curricular Action in Community and Society - ACCS</i> Extension Script		
1. ACTIVITY DATA:			Discipline Code:	
Coordinator professor:		Coordinator and assistant professors contacts (phone and email):		
Assistant professors:				
Nature: Research/teaching and extension	Course total hours:	Module:	Graduation courses involved:	
Number of vacancies per graduation course:		Offer period (year/semester):		
Date and time of weekly meeting:		Field activity		
Location of weekly meeting:		Days, time and likely location of activities:		
Prerequisites				
2. Offering Unit/department:				
3. Thematic area of university extension:				
4. Content/themes: (it will clarify the content/themes considered major and complementary in the area of concentration of the supplied ACCS).				
5. Rationale:				
6. Context: (it must describe the characteristics of the community, the local context and the problem to be faced).				
7. Methodology: (must clarify the working methods and strategies to be used to achieve the goals; teaching-learning evaluation process).				
8. Goals:				
9. Evaluation:				
10. Schedule: (It must be aligned with the goals and methodology, presenting the steps and duration of each).				
11. Expected products: (Formal products: partial and final report. Counterpart products to the community. Publication of the results: texts for publication, presentation events, etc.)				
13. Cost sheet: (must be consistent with the availability of resources of the ACCS and with proposition goals).				
14. References:				

Praia Grande is located on Maré Island, in the city of Salvador, Bahia, and was certified by the Palmares Cultural Foundation (FCP) in 2005¹⁰ as one of the remaining quilombo areas. With a population of about 2500 inhabitants, this is one of the most populous communities in the Maré Island.¹¹ This population lives of fishing, shellfish gathering, craft and subsistence agriculture.⁶

The community's infrastructure consists of a Basic Health Unit (BHU) and two elementary schools. There is no sewage system and the population coexists with it in the open.⁷ Most of the population has piped water system and electricity.

Moreré is a community belonging to Boipeba Island, comprising approximately 400 inhabitants, 87km away from Salvador. Its main economic activities are fishing and tourism.⁶ In an epidemiological diagnosis, the Crescer group of studies found that 5% of households have septic tank, 43% lack basic sanitation and the population generally live in poor housing, food and health conditions.

Vila Monte Alegre is a small village of about 100 inhabitants, located in the center of Boipeba, between Moreré and São Sebastião. It is a remnant quilombo community and its main source of income is family farming.⁷ Its population has no piped water or sewage service. Regarding the type of housing, 85% of the residences are mud houses. Both Moreré and Vila Monte Alegre have only one elementary school each and no basic health service.

This experience report is the product of a multidisciplinary project entitled "Sustainability: The development of Quilombo Communities" approved in call by the Research Support Foundation of the State of Bahia (FAPESB) and the National Council for Scientific and Technological Development (CNPq) under the edict 23/2003. The applicant institution was the School of Nursing of the Federal University of Bahia (EEUFBA) and all ethical criteria contained in Resolution 466/12 were respected.

The extension project had the following organizational script, as displayed in Figure 1.

RESULTS AND DISCUSSION

Approach to the locus of study

The EEUFBA, by the Crescer research group, started in 2003 its relationship with the communities under study through health education activities. A priori, it sought to generate an approximation between researchers and communities, a process that contributed to the identification of local leaders for a more effective targeting of activities to be developed and, likewise, for the convergence of scientific and popular knowledge.¹²

Our first action was an extension project entitled "Eyes on the health of the population of Moreré and Monte Alegre". In this activity, it was found that one of the population's wishes was the seeking for self-sustainability through the use of natural resources. In this context, the community itself concluded that, for the promotion of health, they would need something that could enable them to generate income. Thus, they suggested the creation of waste reuse or candy commerce cooperatives.

On a visit to Praia Grande, the team of chemical engineering researchers from the State University of Maringá (UEM) identified the generation of relevant waste for production of acoustic boards, which could be used in construction.

Concomitantly, in Morere they identified that the fiber extracted from palm fiber which is already used in the manufacture of handmade shutters could also be used for the fabrication of acoustic devices. Thus, both the handmade shutters and acoustic devices could result in excellent marketing products in the Brazilian market.

In Vila Monte Alegre the only identified income opportunity was in the family farming.

Extension activities developed

In the three aforementioned communities, simultaneous activities were developed with knowledge bases related to two themes: health education and social technologies to promote self-sustainability.

Health education is a strategy for the development of educational practices used to teach the public to prevent disease and promote health based on the social determinants that lead to illness in health generators.¹³

The social technology comprises the products, techniques or replicable methodologies developed during the interaction with the community and representing effective solutions for social changes.¹⁴

Sustainability is characterized as a factor of promotion of freedom and empowerment of groups and traditional communities,¹⁵ in order to enable sustainable development, which is considered by the World Commission on Environment and Development (WCED)¹⁶ as something that, without compromising the abilities of future generations, can meet the needs of the present ones.

Based on the situational diagnosis made in agreement between researchers and community, which allowed the design of actions to promote health through sustainable development, the team carried out meetings with theoretical and practical approach to train community residents in the manufacturing of handicraft products (Figure 2).

Figure 2. Project development steps. Brazil, 2016.



In 2005, with CNPq support through the MCT/MMA/SEAP/SEPPIR/CNPq Edict Number 26/2005, we developed in these three communities the project entitled "Promoting Citizens: Homemade Candy Cooperative", where we sought to implement the candy cooperative using the typical fruits of the region, in order to meet the needs of the population. Therefore, from the local voluntary labor, two experimental kitchens were built in Praia Grande and Moreré, where they produced banana candy on straw (a specialty of Praia Grande confectioners) and cocada with cashew compote (a Moreré specialty).

In this project, health education activities took place during the preparation of the candy, and making use of different teaching techniques we discussed topics related to environmental hygiene, self-care, sexuality, food preservation, among others.

The extension activities related to teaching (Curricular Activity in Community - ACC) were called "You teach me how to make candy and I'll teach you how to date", considering that the research students learned to make candy with the community, while the latter received health education guidelines, mainly related to sexuality.

In 2010, with the support from development agencies (CNPq and FAPESB) and the local community labor, we began the construction of a workshop in Moreré for the production of acoustic devices, shutters and handicraft products made of palm and oil palm fibers. In that same year, in Praia Grande, a factory for the production of acoustic plates with the fibrous residues

of wild cane, used in the production of handcrafted goods was built. Also this year, the experimental kitchen of Vila Monte Alegre was constructed.

The activities related to health promotion, since the initial stages of the project, were mainly carried out with children and adolescents with topics related to health diagnoses; environmental diagnostics; diseases prevalent in the black population; oral health; first aids; health in school, among others.

In this direction, the contents were developed through workshops, with UEM and UFBA professors from different areas as well as professionals from companies specializing in acoustics (AUDIUM) as instructors. The traditional confectioners from the communities were responsible for teaching the candy preparation techniques. Local craftsmen taught the shutters manufacturing technique, while UEM was responsible for research on the manufacture of acoustic boards with the residues identified in Praia Grande and, later, for transferring this technology to the participants and AUDIUM has been a great supporter in the improvement and marketing of acoustic products.

Community sustainable development through extension activities

After the completion of health education activities, the training and the construction of the experimental kitchen, workshop and the factory for the production of acoustic boards, blinds and other handmade artifacts, the members of the communities received guidelines for professional production and marketing of products in State of Bahia.

After this, the manufacturing process of products, mainly of acoustic boards, began to proceed complying with some technical-scientific criteria, but with no harm to their artisan characteristics.

Of the three communities, we can say that Moreré has presented a significant development, because the people have learned to value their native knowledge, and also the local artisans have become more creative and enterprising. The marketing of crafts and acoustic devices contributed to the increase in local income, as well as to promote self-confidence and health.

The experimental kitchen is mainly used in the summer, where meals are prepared for the tourists. These activities are organized by the Association of Residents of Morere and Monte Alegre (AMAMOS).

In Praia Grande, the production process of the acoustic boards suffered several setbacks (mechanical and chemical) and only in 2016 the plates began to be produced in the required quality standards. Despite this fact frustrated people's expectations, it was not an impediment to the health education activities, which continued occurring with the aid of the population. Many native adolescents have benefited from "Jr. research"

fellowships and some continued following the plate production process, collecting the fibrous waste used by craftsmen and thus protecting the environment. The experimental kitchen is used by the Educational Benevolent Association of the Maré Island (ABECIM).

In Vila Monte Alegre the experimental kitchen is used by teachers and students from elementary school on different occasions, but the population has not fully made use of the investment yet. As it is a more closed community and the only one that has active native midwives, we provided a refresher course for the traditional midwives and a health fair is being planned for community mobilization. Much remains to be done in Vila Monte Alegre for this community to benefit from its natural resources and human potential.

The results arising from the extension activities are summarized in Figure 3:

In addition to the observational results above, Figures 4 and 5 below present the products of the extension activities.

CONCLUSION

The health extension activities developed by the Crescer research team were presented in order to expose the initiatives undertaken by a group of professionals and undergraduate students from different areas together with the people of quilombo communities, introducing new technologies through collaborative work on social cooperative networks.

This project resulted in the construction of two experimental kitchens, one in Praia Grande and another in Morere, plus a workshop and a factory for the production of artifacts from natural fibers, introducing new centers focused on entrepreneurship and commercialization of the products developed.

We believe that the greatest achievement of this project was that teenagers and young adults had the opportunity to discover other forms of sustainability besides fishing and shellfish, and to reflect on different health issues during the workshops. In addition, students were able to share experiences with the community, valuing the popular knowledge.

Today, after six years of operation, these kitchens have been retrofitted for the confectionery industry reaches a more profitable level marketing and also for the introduction of other ways of use of natural resources. The workshop of handicrafts and acoustic devices work satisfactorily and production of acoustic boards is finally reaching a good level of quality.

All the activities to promote sustainability have been linked to health education, with a focus not only in generating employment and income, but also in promoting the improvement of health conditions of the population under study, as well as in the training of future professionals of different areas to work in vulnerable communities.

Figure 3. Distribution of factories per community. Brazil, 2016.

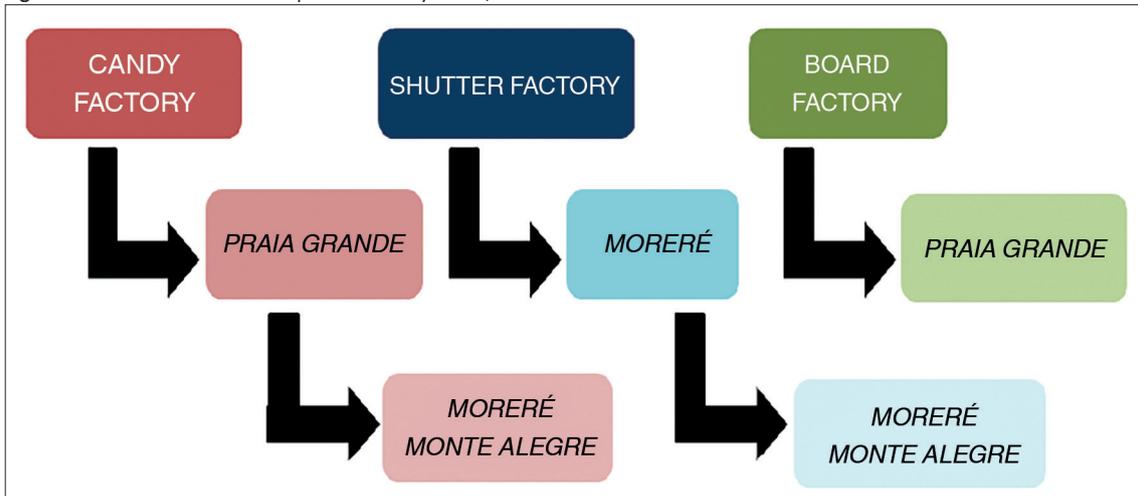


Figure 4. Opening, machinery and finished product of the acoustic boards factory, Praia Grande, Maré Island, Salvador, Bahia, 2016.



Figure 5. Final product of the shutters and acoustic artifacts factory, Moreré, Cairu, BA, 2016.



We believe that to promote health and contribute to the quality of life in vulnerable communities, the increase of its human development indices is required. Thus, it is necessary that the extension activities are focused on health education activities and the development of social technologies for allowing autonomy and strengthening the identity of communities, as well as building the bonds between them, to stimulate the exchange of the different experiences and resources available that can contribute to their sustainable development.

We suggest that other higher education institutions promote exchanges of people from different communities and replicate social technologies presented here for other communities with natural potential like Praia Grande, Morere and Vila Monte Alegre.

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