EPIDEMIOLOGY: PROVIDING BASES FOR THE HEALTH PROMOTION

ABSTRACT

Objectives: to report the experience of students from the Nursing course of Universidade Federal do Rio Grande do Norte (UFRN) who developed the extension action “Epidemiology and Environmental Health in the context of the Unique Health System” and highlight the importance of university extension for the qualification of teaching. Method: this is an experience report in the field of Nursing teaching/learning process integrated to university extension. The pedagogical proposal was based on the capture of objective reality as the initial part of the process of local intervention and the collective confection of a proposal articulating health services, institutions, and community entities. Results: the conditions in the geographic area under study were analyzed; a bibliographic survey was carried out and the course material to be used in the educative activities was prepared; and the school representatives were contacted in order to divulge the project among the schools representatives, who received official correspondences with regard to the project. Conclusions: the project execution allowed the students to develop their competences and abilities in the perspective of health promotion and actions driven to the health vigilance. Besides, university extension constitutes itself as an important tool to bring the students closer to the current social reality and its problems. Descriptors: epidemiology; environmental health; health promotion.

RESUMO

Objetivos: relatar a experiência de discentes do curso de Enfermagem da Universidade Federal do Rio Grande do Norte (UFRN) que desenvolveram a ação de extensão “Epidemiologia e Saúde Ambiental no contexto do Sistema Único de Saúde” e destacar a importância da extensão universitária na qualificação do ensino. Método: trata-se de um relato de experiência na área do processo de ensino/aprendizagem em Enfermagem integrado à extensão universitária. A proposta pedagógica teve por base a captação da realidade objetiva como parte inicial do processo de intervenção local e à confecção coletiva de uma proposta articulada entre serviços de saúde, instituições e entidades na comunidade. Resultados: foram analisadas as condições da área geográfica a ser trabalhada; foi realizado levantamento bibliográfico e conferenciamento do material didático para a realização das atividades educativas; e foram contatadas as instituições de ensino para a divulgação do projeto entre os representantes das escolas, os quais receberam ofícios referentes ao projeto. Conclusões: a execução do projeto proporcionou aos discentes o desenvolvimento de competências e habilidades nas perspectiva da promoção à saúde e de ações voltadas para a vigilância à saúde. Além disso, a extensão universitária se institui como importante ferramenta para aproximar os discentes à realidade social vigente e sua problématica. Descriptores: epidemiologia; saúde ambiental; promoção da saúde.

REPORT EXPERIENCE ARTICLE

EPIDEMIOLOGÍA: SENTANDO BASES PARA EL FOMENTO DE LA SALUD

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ABSTRACT

Objetivos: relatar a experiencia de discentes del curso de Enfermería de la Universidad Federal de Rio Grande do Norte (UFRN) que desarrollaron la acción de extensión “Epidemiología y Sanidad Ambiental en el contexto del Sistema Público de Sanidad” y destacar la importancia de la extensión universitaria en la cualificación de la enseñanza. Método: se trata de un relato de experiencia en el área del proceso de enseñanza/aprendizaje en Enfermería integrado a la extensión universitaria. La propuesta pedagógica tuvo por base la captación de la realidad objetiva como parte inicial del proceso de intervención local y la confeción colectiva de una propuesta articulada entre servicios de salud, instituciones y entidades de la comunidad. Resultados: se analizaron las condiciones del área geográfica objeto del trabajo; se realizó levantamiento bibliográfico y conferenciación del material didático para la realización de las actividades educativas; y se entró en contacto con las instituciones de enseñanza para la divulgación del proyecto entre los representantes de las escuelas, los cuales recibieron oficios referentes al proyecto. Conclusiones: la ejecución del proyecto contribuyó en los discentes al desarrollo de competencias y habilidades bajo la perspectiva del fomento a la salud y de acciones dirigidas hacia la vigilancia de la salud. Además, la extensión universitaria se constituye como importante herramienta para acercar a los discentes a la realidad social vigente y su respectiva problemática. Descriptores: epidemiología; sanidad ambiental; fomento de la salud.
The epidemiology is a science or subject, depending on its application, which uses the scientific methodology to study the illness characteristics in populations, which are caused by biological, chemical, physical, socioeconomic, nutritional, gestational or hereditary agents.¹

Differently from the clinic, which studies the health-illness process in individuals, aiming to treat and cure isolated cases, the Epidemiology worries about the process of illnesses, deaths occurrence, any other disease or risk situations towards health in community, or in its groups, aiming to propose strategies that focus on improving the level of health of people who are part of this community.²

The modern investigation has greatly contributed to highlighting the environment as a primary and a condition element of the health/illness level of the human populations. For a lot of pathology which was catalogued until recently as primary, idiopathic or unknown etiology, it has been found some causal explanations associated with environmental pathogen factors and agents.

The ecology and the sustainable development are examples of questions that worry citizens and scholars from all around the world and mobilize governmental and non-governmental organizations to the defense of the environment and the human health. Leaving a healthier environment to the future generations is a great challenge.³

The information or relevant data for the analysis of the health situation is too numerous to list and from many different sources. We can highlight, for instance, the data about the population (inhabitants’ number, age, gender, race, etc.), the socioeconomic data (income, occupation, social class, type of work, living and feeding conditions), the environment data (pollution, water supply, sewage treatment, waste collection and disposal), the data about health services (hospitals, clinics, health units, access to services), the morbidity data (illnesses that occur in the community) and the vital events (deaths, birth lives or stillborns, mainly). Certain data (morbidity and vital events) are generated from the own health sector, in a continuous way, constituting systems of national information, managed by the Ministry of Health.⁴

In the political, economic and social landscape that are constituted of practices and tools developed by the epidemiology, it is possible to generate information which is capable of helping the decision-making process, in all levels and sectors, by the groups of interests involved in the health and environment issues. From the point of view of knowledge, the context includes theories and concepts that help us understand how and in which situations to use, and how to analyze the results of epidemiological studies in environmental health.³

The complexity that involves environmental and health problems needs a greater articulation between the diverse sectors, envisioning the control of these situations, as well as the prevention of diseases. It is highly important to employ all the knowledge we have and that the epidemiology has brought about, to enrich its power of intervention in the field of relations between health and environment.

In this context, the subject of Epidemiology and Environmental Health of the Nursing degree course of Faculdade de Ciências da Saúde do Trairi, Universidade Federal do Rio Grande do Norte (FACISA/UFRN) intended to prepare the undergraduate student to intervene in the transformation of the population health reality through the practice of health surveillance, surveillance and epidemiological investigation, sanitary surveillance and environmental education. For that, some partnerships were established with communities, homogeneous groups, NGOs and health services, in the construction of epidemiological profiles, in the diagnosis of diseases, in the establishment of priorities and in the interventions (intersectoral, interdisciplinary and multiprofessional), joining teaching-service-community, stimulating citizenship and creating health promoters in the intervention areas.

From this view, the Project of extension called Epidemiology and Environmental Health in the context of the National Health System emerged, an action that was based on the necessity of qualifying the process teaching/learning of the Nursing Degree undergraduate students of FACISA. It intended to promote the improvement of the population health through the development of educational actions and scientific investigation, contributing towards the strengthening of the National Health System (SUS), promoting the continuous education of the professionals who perform these services, as well as maintaining the fields of practice training, turning the link teaching/service and community stronger.
In this context, this study aimed:

- Report the experience of undergraduate students of the Nursing degree course in the action of extension “Epidemiology and Environmental Health in the context of the National Health System”;
- Focus attention to the importance of the university extension in the qualification of the undergraduate teaching in Nursing.

**METHOD**

It is an experience report in the area of the teaching/learning process in nursing integrated with the university extension.

In this paper we describe the stages of elaboration and implementation of the extension project of continuous action of nursing, which occurred from 2009 to 2010.

The pedagogical proposal was based on the collection of the objective reality as an initial part of the process of local intervention and the collective production of a joined proposal between health services, institutions and entities in the community. In order to answer the objectives and the pedagogical proposal we used the following strategies: conducting bibliographical researches in the field of Epidemiology; visiting the health institutions and the local communities; holding planning meetings with the professors, undergraduate students, health professionals and local health managers; preparing the didactic material for the educational activities performance; dissemination of the project with the schools representatives and health professionals; lectures in high and secondary schools and Health Units; distribution of pamphlets; making noticeboards; participating in science fairs and spreading the project results in scientific congresses.

**RESULTS**

First, we analyzed the actual conditions of the geographical region to be dealt with, this analysis happened through the building of an epidemiological profile of the most populous area of Santa Cruz/RN, in the suburb Paraíso; aiming to identify the main diseases and socio-sanitary and environmental conditions.

For that we used a structured guide of interview consisted of four modules, the first one is about the interviewee profile; the second one, family data; the third one, sanitary situation and quality of life; and the last one, environmental perception. Based on this data collection, we observed the necessity and importance of an educational work upon health with the community, as it pointed out precarious socioeconomic and sanitary conditions concerning the access of the collective consumer goods, lack of a basic sewage system and pavement on most of the streets; presence of pets and stray animals; precarious garbage collection with the dissemination of rodents and insects and deficiency in the attendance in the health services in the Basic Health Unit.

Supported by this profile we held action planning meetings to be developed in the educational institutions with strategies to act and intervene in the society aiming the education and their awareness in order to promote healthy habits and quality of life.

It was conducted a bibliographical survey and we produced the didactic material for the performance of the educational activities. Afterwards, we contacted the educational institutions so that we could disseminate the project to the schools representatives, who received a letter about the project.

After checking the interest of the visited institutions we could elaborate the activities schedule.

In regard to the analysis of the epidemiological profile of the region and the link between the involved entities in the project, it was opted to deal with the following themes: environment, hygienic habits, Influenza A virus, subtype H1N1; sexually transmissible diseases (STDs) and contraceptive methods.

The choice of the theme *Environment and Hygienic Habits* happened due to the relevance of this theme in the modern world and the perception of the environmental situation raised in the epidemiological profile, the approach of this subject was addressed to the childhood audience, as the education about the environment preservation since childhood is constituted as an important tool for the awareness of its importance in our everyday life; the theme STDs and contraceptive methods was approached with the adolescent group, as they consist of a more vulnerable group to the contagion with the STDs, it may be due to family omission or deficiencies of the educational and health system concerning the provision of effective information; finally the theme Influenza A virus, subtype H1N1, happened because of the outbreaks in Brazil and Rio Grande do Norte, leading to an intense preoccupation and curiosity of the population upon all the aspects related to this pandemic.

We created media presentations, folders and ludic activities in order to approach the themes. The parts of the project were divided into small groups; we distributed the activities...
and defined the place where each group would develop it.

The themes Virus H1N1, Hygienic Habits and Environment were dealt with in four schools of Santa Cruz/RN, from which 01 was Municipal and 03 were State, with secondary school students. When we worked with the theme Environment, the undergraduate students wore clown costumes and distributed presents in order to call the students attention and have everybody participating. It was given lectures with the use of media devices, fantasy fun activities and plantation of native three seeds in the schools patio as an incentive to this activity.

The discussion about the present situation of the planet and possible contribution was encouraged and there was a great interaction between the audience and the undergraduate students. The results were much better than expected, because the children were really interested and aware of the importance of the environment preservation.

With the increase of the cases of Influenza A (H1N1) in Rio Grande do Norte, the subject became a reason of great preoccupation of the population. In this context, the extension project conducted lectures in schools, where the following aspects were approached: definition; way of transmission; signals and symptoms, ways of prevention and how to proceed in case of symptomatology suspicion.

Besides this discussion it was also performed a dynamic activity of contact of hands between the lecturers and the audience, aiming to simulate the chain of transmission through the direct contact, we emphasized the importance about the care and the correct way of washing hands, as this is one of the main ways of prevention.

It was observed a considerable interest and satisfaction from the teachers when we approached the theme Hygienic Habits, because they claimed to have some difficulty in approaching this subject with their students. It was used audiovisual materials and we performed dynamic activities with puppets. Taking this opportunity to its most, a balanced feeding was also encouraged, trying to turn this practice something pleasant. To stimulate the care with the oral health, it was taken some materials that called the children’s attention, such as giant toothbrushes and teeth, and they were invited to show how they cleaned their mouth, but always guiding them about the proper way.

Regarding the themes STDs and Contraceptive Methods, they were dealt with in four public schools and a private one, with high school students. As resources we used lectures with media device, presented a board of contraceptives offered by SUS, discussed the STDs and conducted general orientations about health. We tried to use scientific information in the lectures in a didactic and expositive way, using images in order to ease the comprehension for the adolescents.

Issues addressing the STDs/AIDS such as, the symptoms, ways of transmission, treatment and prevention were highlighted for the students aiming to introduce in their knowledge an awareness of health promotion and relevant information for the prevention of several diseases that are common mainly in social groups with low education. It was also conducted some participatory methodologies with the students, in which it was possible to emphasize the dynamic of the introduction of the male condom, in which one of the students explained to the others the correct way of introducing it; for this, it was used a male prosthesis or a banana. Right after that, the undergraduate students actually explained the proper way of using the condoms in a way not to cause accidents.

The lack of information of the adolescents upon the approached theme was visible, as well as the taboo in dealing with the subject and even a little fear of it. Along the paper we could realize that the audience interacted with questions and notes that were sent to the lecturers without identification, collected in an urn, and it showed us the need of a better attention towards this audience, as due to the complexity of the own adolescence, the fear of innovations that emerge and the modifications of this period of life make them more retiring and, many times, resistant to the dialogue about certain subjects.

DISCUSSION

Currently, it has been discussed that the student participation in extension activities promotes the updating of scientific information, something that, at an early stage, allows the undergraduate student to put into practice the acquired knowledge, being characterized as a complementary offer of vocational training.

In this context the Extension Projects are examples of the several ways of interaction of the student acquiring information with the University.

This way, the role of the university nowadays is to lead the undergraduate student to learn to think and to make decisions. The learning process must go beyond the immediate application, leading
the subject to create and meet challenges, to be able to generate technologies and to keep the ability to learn and recreate permanently; in other words, the educational training must change in the locus of construction/production of knowledge, in which the student acts as a subject of learning and that they contribute to take information to the community, from an interactive and collaborative way of learning.4,5

The knowledge process always included the incessant and curious search of new information, a fact that “implies reflective and questioning attitudes that are derived from the interaction with the community, in order to comprehend the actual needs and, from them, perform proactive and transformative actions”.6

A small group of people has direct access to the knowledge that is generated in the public university, in this meaning the university extension is indispensable to the democratization of the access to this knowledge, as well as for the resizing of the social role of the own university, mainly if it is public.7

Among the main social rules of the University, we emphasize the contribution in the search of solutions for the severe social problems of the population. The extension, however, can be considered indispensable in the student training process, in the professor qualification and in the exchange with the society, implying in multi, inter or transdisciplinary and interprofessional relations. The quality and success of the professionals graduated from the universities, however, depend, directly, on the level of development, balance and harmony between these three areas of University.

The formation of human resources that can meet the needs of the community is the central role of a University. Acting dynamically, putting into practice what is learned offers a preparation that would not probably be possible only through the traditional subjects of the course. However, we can not forget the human formation, in which we must highlight what is learned from life, from citizenship, from more horizontal relations between the professionals and users.

The extension as a teaching process is extremely important and not only as a simple event outside the classroom, in which the students go to the community to assist them. This way, the extension activities will be able to include all the students, operating in accord with the teaching and the research, in a way they are also activities which produce knowledge.8

The universities consist of investigation places, documentation, creativity and teaching, where “it is created for someone” and “it is taught to someone”, it is evident the commitment that the university institutions must have with the society in which they are inserted, including the understanding and cooperation for the challenges overcoming. It shows the importance of development of researches and university extension, because these things instrument and incorporate the undergraduate student, integrating them with the social context.9

The performance of extension proposals enables benefits both for the student and the population who they assist. The student experiences feeling like a professional, as they are seen like this by the population to whom they are developing activities. Besides developing their autonomy and searching an approximation more and more coherent and efficient concerning the reality and the needs of the community. This turns the performance of actions and activities that contemplate the actual existent shortage more viable, enabling the partial resolution of the problems based on these shortages. Besides stimulating the community itself in the search of options that are capable of providing their needs, based on the developed actions and associated with the reflection upon the situation.10

Therefore, we corroborate the comprehension of the university extension as an educational, scientific and cultural process, which joins the teaching and the research providing meetings and dialogues between undergraduate students, professors and the society determining a possible production of new knowledge, which owns emancipative established character from the exchange and building movement between the scientific and popular knowledge.11

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they are not integrated with the social demands.

The performance of the this Project provided the approach of nursing undergraduate students of the Faculdade de Ciências da Saúde do Trairí with the present social reality and its problematic situation, allowing the development of competences and abilities in the perspective of the health promotion and actions addressed to the health surveillance. The Epidemiology was characterized as an essential tool for the success of the project, as it provided solid bases for the development and effectiveness of it, through this science it was possible to contribute towards the educational development and consequent advances in knowledge and health of population.

Including the awareness of the health promotion, through the knowledge of the diseases and its methods of prevention in the basic levels of teaching in public and private schools in Santa Cruz, is an elevated way of construction of SUS, which should impose it as a regular practice of the institutions of higher education as a way to improve this interaction of knowledge/community.

On the other hand, the contact with the community provided the undergraduate student with the reflection, which many times is not found in the classrooms, about the importance of their professional, ethic, human and sympathetic formation.

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