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CONTRIBUTION OF EDUCATIONAL ACTIONS FOR KNOWLEDGE OF HIGH SCHOOL STUDENTS OF ABOUT LEPROSY

CONTRIBUIÇÃO DE PRÁTICAS EDUCATIVAS PARA CONHECIMENTO DE ESCOLARES DO ENSINO MÉDIO SOBRE HANSENÍASE

CONTRIBUCIÓN DE PRÁCTICAS EDUCATIVAS PARA CONOCIMIENTO DE ESTUDIANTES DE LA SECUNDARIA SOBRE LA LEPROSIA

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ABSTRACT

Objective: to analyze the knowledge of High School students about Hansen's disease before and after the practice of health education in the classroom. **Method:** exploratory, descriptive study with a quantitative approach. The school chosen for the study had 280 students enrolled in High School at Parnamirim-RN, Brazil, and the sample consisted of 190 students. Data were collected through questionnaire and received descriptive statistical analysis. The project was approved by the Research Ethics Committee, Certificate of Presentation for Ethical Consideration No. 00780051000-09. **Results:** leprosy was little known by students and the lecture informed 100% of the target population of educational activities about the disease. **Conclusion:** it is important that nurses develop educational activities in health care for the control of leprosy, since knowledge about it can lead to early detection of its signs and symptoms, and pursuit of treatment. **Descriptors:** Leprosy; Health Education; Nursing.

RESUMO

Objetivo: analisar o conhecimento de escolares do Ensino Médio sobre a hanseníase antes e após a prática da educação em saúde nas salas de aula. **Método:** estudo exploratório, descritivo, com abordagem quantitativa. A escola pesquisada possuía 280 alunos matriculados no Ensino Médio de Parnamirim-RN, Brasil, sendo a amostra composta por 190 estudantes. Os dados foram coletados por questionário e receberam análise estatística descritiva. O projeto foi aprovado pelo Comitê de Ética em Pesquisa CAAE 00780051000-09. **Resultados:** a hanseníase era pouco conhecida pelos escolares e a palestra levou informações acerca da doença para 100% do público-alvo das ações educativas. **Conclusão:** é relevante o desenvolvimento de atividades educativas em saúde pelo enfermeiro para o controle da hanseníase, uma vez que o conhecimento sobre ela pode levar à percepção precoce de seus sinais e sintomas, e busca por tratamento. **Descritores:** Hanseníase; Educação em Saúde; Enfermagem.

RESUMEN

Objetivo: analizar el conocimiento de estudiantes de la Secundaria sobre la lepra antes y después de la práctica de la educación en salud en el aula. **Método:** estudio exploratorio, descriptivo, con enfoque cuantitativo. La escuela investigada tenía 280 alumnos matriculados en la Secundaria de Parnamirim-RN, Brasil, así la muestra compuesta por 190 estudiantes. Los datos fueron recogidos por cuestionario y recibieron análisis estadística descriptiva. El proyecto fue aprobado por el Comité de Ética en Investigación CAAE 00780051000-09. **Resultados:** la lepra era poco conocida por los estudiantes y la conferencia llevó informaciones acerca de la enfermedad para 100% del público objeto de las acciones educativas. **Conclusión:** es relevante el desarrollo de actividades educativas en salud por el enfermero para el control de la lepra, una vez que el conocimiento sobre ella puede llevar la percepción precoz de sus señales y síntomas, y búsqueda por tratamiento. **Descriptor:** Lepra; Educación en Salud; Enfermería.

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INTRODUCTION

Leprosy is a chronic contagious and infectious disease, of slow evolution caused by the *Mycobacterium leprae* bacillus, or bacillus of Hansen, which has a predilection for epithelial cells and peripheral nerves, promoting dermatological and neurological commitments that can lead patients to develop physical disabilities.¹

The human being is a source of leprosy infection and the transmission occurs through contaminated respiratory droplets, expelled through the upper airways of patients with a high load of bacteria. After settling into the organism, the bacillus can multiply and trigger the disease in its different clinical manifestations, evolving into physical disabilities.²

Over the years, leprosy has been associated with the generation of social stigma, prejudice and segregation of patients, because of physical deformities presented by untreated patients. Therefore, taboos continue integrating the context of relations between the affected and society.³

During the last decades, there has been a consistent reduction in the worldwide incidence of leprosy, mainly as a result of the recommendations of the World Health Organization (WHO) in introducing the multidrug therapy (MDT) in 1981 and in implementing a leprosy surveillance system in endemic countries.⁴

The cure of leprosy is closely related to early diagnosis and implementation of drug therapy to prevent the maintenance of epidemiological chain, and consequently, the spread of disease, by inactivating the transmission of bacilli through the infected humans.⁵

Over the past decade, the decentralization of leprosy control actions has advanced in the country. In 2010, about 90% of the services that had patients being treated for leprosy were in primary care, primarily responsible for about 74% of cases in treating leprosy.⁶ Although detection rates in Brazil have presented a downward trend from 1990 to 2008, there was an increase of 20.0/100,000 inhabitants in 1990 to 29.4/100,000 in 2003, with rates at high levels in the North, Northeast and Midwest regions.⁷

The leprosy prevalence rate in Brazil in 2011 was 1.24/10,000, distributed as follows in the Brazilian regions: 3.28/10,000 inhabitants in the North region, 3.15/10,000 inhabitants in the Midwest region, 1.56/10,000 in the Northeast region, 0.56/10,000 inhabitants in the Southeast

region and 0.46/10,000 inhabitants in the South region.⁸

In northeastern Brazil, the state of Rio Grande do Norte presented a downward trend in detection rates and in 2011 had a prevalence of 0.31/10,000 inhabitants. Regarding the spatial distribution of cases in children under 15 years old, in 2008 there was notification of children in 12 (7.2%) municipalities in the state, which are surrounded by areas without cases, and in 2011 the detection rate in children under 15 years old was of 1.40/100,000 inhabitants.⁷⁻⁸

The National Program for Leprosy Control stipulated that in 2030 there will be in Brazil low risk of leprosy, with no cases in children under 15 years old. There will be prevalence of equal opportunity to diagnosis and early treatment among leprosy patients and lack of stigma and prejudice to the affected by the disease.⁶ Given the above, the nurse should be able to develop educational activities aimed at social networks, such as schools, in order to emphasize the importance of combating stigma of leprosy and the aspects related to its epidemiological chain.

By training people, promoting aggregation of knowledge, providing skill acquisition and raising critical awareness for making healthy decisions with social responsibility, health education reflects a socio-educational approach.⁹ And the school environment, designed to be an institution with responsibilities for basic training and socialization of individuals, is the most conducive environment for the proliferation of healthy habits and attitudes, whether for children or for adolescents.¹⁰

From this perspective, it is evident that the school environment is favorable for the realization of educational programs aimed at promoting health among children, adolescents and young adults, which makes the disclosure of information on leprosy relevant.¹¹ Because this disease is a public health problem in Brazil, due to the number of victims and its potential to generate physical disabilities in individuals, it is crucial the realization of early diagnosis and immediate initiation of appropriate treatment.

Given this context, it is appropriate to carry out this study given the continuing need to invest in educational practices that contribute to the spread of knowledge regarding leprosy.

Thus, the following question arises: what is the knowledge that High School students have about leprosy? Can a health education action improve the knowledge of students?

OBJECTIVE

- To analyze the knowledge of High School students about the disease before and after the a health education action.

METHOD

This is an exploratory, descriptive study¹², with a quantitative approach, which analyzed the knowledge of High School students about leprosy in a public school in Cohabinal neighborhood in the city of Parnamirim, Rio Grande do Norte, Brazil.

That school was selected because it has the highest number of High School students in the city. It is also an excellent research field, open for studies in health education. Knowing that the physical disabilities caused by leprosy affect mainly the economically active population, the High School classes were selected to participate in the study.

For data collection, it was used a questionnaire with multiple choice questions about leprosy, prepared based on information contained in technical manual of Ministry of Health. This reference aimed to strengthen basic care and its capacity to respond to emerging and endemic diseases.

It was used a non-probability sampling, by convenience, in order to include the greatest number of students enrolled in school, which contained eight High School classes and 280 students enrolled, which is the study population. The sample consisted of 190 students, aged between 16 and 23 years old, of both sexes.

Inclusion criteria were: being enrolled in High School of the institution selected for the research, being present in the classroom during the research and consenting voluntarily to participate by signing the Informed Consent Form (ICF). For students under 18 years of age, the Informed Consent Form was signed by their legal guardians.

Exclusion criteria were: those not enrolled in High School or absent of the classroom during the research, as well as those who have not consented to participate or who have not brought the authorization by their legal guardians.

The period between the initial contact with the school and the end of data collection comprised the first two weeks of September 2011. To this end, responsible authors for carrying out the research visited the school on three different days, not consecutive, scheduled according to the school's availability. To achieve the proposed goal, the data collection followed two distinct phases.

In the first stage, called pre-test, researchers applied the questionnaire, in which students answered multiple choice questions about leprosy. It was explained that the answers should derive from the personal knowledge of each participant, and that they should not collect information from other sources, not to affect the research results.

The second phase occurred soon after the delivery of the questionnaires answered by students, when health education activities were carried out in the dialogue-display format with supporting posters and flyers, which contained information on mode of transmission, clinical manifestations and forms of treatment of leprosy. The posters were presented to research participants, providing clarification of doubts about leprosy, which arose during the exhibition.

After the health education activity, there was the reapplication of the questionnaire, called post-test moment, aimed at verifying the effectiveness of that educational action.

Questions answered correctly at each stage were recorded, organized, categorized and entered into electronic spreadsheet for further descriptive statistics.

The project was approved by the Ethics Committee of the Federal University of Rio Grande do Norte, with protocol number 072/09 and Certificate of Presentation for Ethical Consideration No. 00780051000-09.

RESULTS

In the pre-test phase, 181 (95.0%) respondents stated not having received information about the disease in the classroom, which reflected directly on survey responses, of which 118 (62.0%) of the participants demonstrated not having knowledge about the etiological agent, 162 (85.0%) responded wrongly about the mode of transmission, only 70 (37.0%) responded correctly about the symptoms and 91 (48.0%) knew the service to be sought in suspected cases. However, most students appropriately informed about the cure (99 - 52.0%) and treatment (114 - 60.0%).

Among students surveyed, 158 (83.0%), demonstrated knowledge of the disease when it was called by leprosy, similar fact observed when the name was changed to Hansen's disease (133 -70.0%). However, participants did not relate the two terms of the disease as synonyms, since in the pre-test 158 (83%) said they had heard of leprosy and only 133 (70%) of Hansen's disease.

In the second phase of the research, it was observed, at post-test, change for the correct

answers of the questionnaire, reflecting the positive results that students got on the theme leprosy.

To facilitate discussions of this study, the data were organized in tables and in the chart

presented below. Table 1 presents the results related to the general knowledge of students about the disease before and after the educational intervention.

Table 1. Quantitative and comparative analysis of data collected in this research, before and after the health education action. Parnamirim-RN, 2012.

Knowledge and information	Pre-test n (%)	Post-test n (%)
Have already heard about leprosy		
Yes	158 (83.0)	190 (100.0)
No	32 (17.0)	0 (0.0)
Have already heard about Hansen’s disease		
Yes	133 (70.0)	190 (100.0)
No	57 (30.0)	0 (0.0)
Access in classroom on leprosy		
Yes	9 (5.0)	181 (95.0)
No	181 (95.0)	9 (5.0)
Health service to be sought in case of suspected leprosy		
Hospital	99 (52.0)	12 (6.4)
Basic Health Unit	91 (48.0)	178 (93.6)

Table 2 shows data on the knowledge of students, presented as adequate or inadequate, referring to specific elements of the epidemiological chain of leprosy.

Table 2. Quantitative and comparative analysis of collected data on the epidemiological chain of leprosy in this research, before and after the health education action. Parnamirim-RN, 2012.

Variables	Knowledge	
	Pre-test n (%)	Post-test n (%)
Etiology (cause) of leprosy		
Adequate	72 (38.0)	186 (98.0)
Inadequate/Ignorance	118 (62.0)	4 (2.0)
Leprosy transmission		
Adequate	28 (15.0)	188 (99.0)
Inadequate/Ignorance	162 (85.0)	2 (1.0)
Symptoms of leprosy		
Adequate	70 (37.0)	186 (98.0)
Inadequate/Ignorance	120 (63.0)	4 (2.0)
Existence of healing for leprosy		
Adequate	99 (52.0)	186 (98.0)
Inadequate/Ignorance	91 (48.0)	4 (2.0)
Duration of treatment of leprosy		
Adequate	114 (60.0)	183 (96.4)
Inadequate/Ignorance	76 (40.0)	7 (3.6)

By comparing the data collected in the pre-test and post-test, it was shown the effectiveness of educational activities carried out mainly with respect to the transmitting

agent, symptoms, healing and health service that should be sought in case of suspected leprosy, as shown in Figure 1.

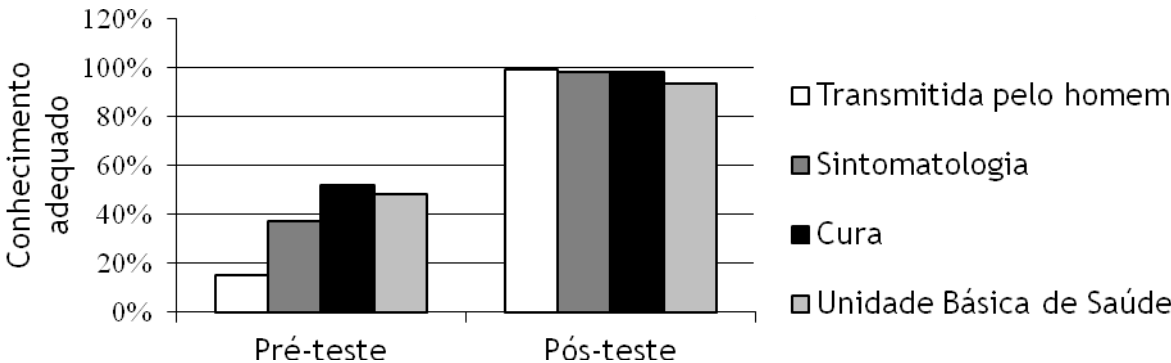


Figure 1. Comparison of the data collected before and after the implementation of health education action. Parnamirim-RN, 2012.

DISCUSSION

The National Program for Leprosy Control has communication and health education as structural components, comprising three areas that must be conducted in accordance with current policies: health communication actions; permanent education; and social mobilization.⁶

The implementation of educational actions based on leprosy and the development of activities related to health surveillance aimed at students, who are susceptible to the disease, in order to guide the search for health service, are actions that should be effected to control leprosy.¹³

When comparing the results of those who have heard of leprosy with those who knew the terminology Hansen's disease, it became apparent that some of the students did not know the employability of these terms as synonyms.

In Brazil, the term leprosy was abolished from the Brazilian medical literature in 1976 and replaced by the term Hansen's disease, named after the doctor who discovered the bacillus that causes the disease, Dr. Gerhard Henrik Armauer Hansenn. This change aimed to reduce prejudice and to promote social integration of patients.¹⁴

Although the term Hansen's disease is associated to changes in the social imaginary, which formerly was related to stigma and prejudice related to leprosy, it is important that health campaigns to publicize the association of the two terms emphasizing the existence of healing by drug treatment, and unnecessary patient hospitalization.¹⁴

The effectiveness of the health education activity for the study sample was evidenced in the comparison between the data collected before and after the educative action, particularly with regard to the transmitting agent, the symptoms, the healing and the choice of the adequate health service to refer suspected cases.

Educational activities are priorities in leprosy control program to increase people's knowledge about the disease, in order to reduce barriers to early detection of existing cases and provide changes related to attitudes towards the socialization of the individual with leprosy.¹⁵

Insufficient information about the disease, such as ignorance of the transmission mode, for example, is intrinsically related to prejudice against people affected by leprosy, generating fear in those who live and frequent

the same places of carriers of Hansen's bacillus.¹⁶

Data from this study demonstrate the importance of educational activities, since health education aims to reduce the stigma surrounding the disease, inform about the signs and symptoms and the importance of treatment, which can prevent possible complications.¹⁷

In the pre-test, when questioned about the clinical manifestations of leprosy, 94 (49.0%) of respondents claimed not to know its signs and symptoms. This situation has undergone positive changes after the intervention of the educational activity.

Disclosure of information about the disease is an important tool for controlling the disease, since the general public gets to know better its signs and symptoms, favoring its early detection by the society in order to initiate treatment as soon as possible, breaking its transmission chain.¹⁸

Although leprosy has no cure and is easy to diagnose, it is necessary that the population is informed about the clinical picture of the disease, with easy access to diagnosis and treatment offered by the public health system.¹⁹

It was found that most respondents acknowledged the existence of treatment and cure of leprosy, which is relevant information, mainly because almost all participants had knowledge about these two important features of the disease, after the completion of the education activity in health.

With early diagnosis and initiation of appropriate treatment, there is significant reduction in the prevalence of disabilities among new cases of leprosy.¹⁹ Moreover, when the chemotherapy is started, sick people fail to transmit the Hansen's bacillus, for the first doses of medication inactivate the bacteria.⁵ Therefore, knowledge of the population about the cure and treatment of leprosy is a key tool for good prognosis and to break the transmission chain of the disease.

Regarding the referral of suspected cases of leprosy, the choice of the health service was adequate after conducting educational activities. This is an important data for directing early demand of the service, implementation of treatment and reduction of prejudice against the disease, since treatment is performed on an outpatient basis.

The late demand for health services is associated with the prejudice experienced by leprosy patients and sets up an obstacle to the identification and treatment of these individuals.²⁰ In order to facilitate access of

the population, the actions and activities of the Leprosy Control Program are aimed at primary health care and training of health professionals and education actions are also used for this purpose.²¹

As part of the health care team, nurses play a key role in the development of educational activities related to leprosy, especially when this practice is aimed at young people, which are considered disseminators of information and thus contribute to the prevention and control of leprosy.¹⁸

CONCLUSION

The knowledge that High School students had about leprosy, prior to implementation of the health education action, showed that it is a little discussed disease in school, family and society.

The health education activity favored for the students participating in this study to get to know about the fundamental characteristics of the leprosy, such as the name of the disease, etiology, the transmitter agent, symptoms, cure and which health services suspected cases should be directed to.

It is highlighted the importance of nurses' role in the health promotion process at schools, since they are skilled professionals to carry out health education activities, preventing disease by promoting awareness and the development of the autonomy of the subjects.

This study leads to the realization of similar actions in the context of school, family and society, given that the health education practices result in positive impacts regarding early identification of leprosy and appropriate referral to health services.

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