NURSES' KNOWLEDGE OF THE FAMILY HEALTH STRATEGY ON TUBERCULOSIS CONHECIMENTO DE ENFERMEIROS DA ESTRATÉGIA SAÚDE DA FAMÍLIA SOBRE A TUBERCULOSE CONOCIMIENTO DE ENFERMEROS DE LA ESTRATEGIA SALUD DE LA FAMILIA SOBRE LA TUBERCULOSIS

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ABSTRACT

Objective: to analyze the knowledge of nurses in the Family Health Strategy on tuberculosis. **Method:** this is a quantitative, descriptive and cross-sectional study with 22 nurses. A structured and adapted questionnaire was used as a collection tool. Numerical variables were described as mean and standard deviation and the categorical variables were summarized in simple frequencies and percentages from tables. **Results:** it was revealed, regarding the receipt of training on the subject of tuberculosis, that 77.27% reported never having been trained. Signs and symptoms for a probable case of tuberculosis are reported in 68.18% who did not respond correctly. It was identified that 86.36% answered about the duration of the therapeutic regimen and the medications used in the treatment. It was highlighted, regarding the medicinal effects, that all participants responded inadequately. **Conclusion:** a superficial knowledge on the part of the nurses in the action against the tuberculosis was evidenced, what makes difficult the strategy of control of the disease in the municipality, being necessary the accomplishment of training on the different aspects related to the tuberculosis. **Descriptors:** Knowledge; Nurses; Tuberculosis; Primary Health Care; Family Health Strategy; Training in Service.

RESUMO

Objetivo: analisar o conhecimento de enfermeiros da Estratégia Saúde da Família sobre a tuberculose. **Método:** trata-se de estudo quantitativo, descritivo e transversal, com 22 enfermeiras. Utilizou-se, como instrumento de coleta, um questionário estruturado e adaptado. Descreveram-se as variáveis numéricas como média e desvio padrão e sumarizaram-se as variáveis categóricas em frequências simples e porcentagens a partir de tabelas. **Resultados:** revelou-se, quanto ao recebimento de capacitação sobre a temática da tuberculose, que 77,27% referiram nunca ter sido capacitados. Alerta-se, em relação aos sinais e sintomas para um provável caso de tuberculose, que 68,18% não responderam de forma correta. Identificou-se que 86,36% acertaram sobre a duração do esquema terapêutico e os medicamentos utilizados no tratamento. Destacou-se, no tocante aos efeitos medicamentosos, que todas as participantes responderam de maneira inadequada. **Conclusão:** evidenciou-se um conhecimento superficial por parte das enfermeiras na atuação contra a tuberculose, o que dificulta a estratégia de controle da doença no município, fazendo-se necessária a realização de capacitação sobre os diferentes aspectos relacionados à tuberculose. **Descritores:** Conhecimento; Enfermeiros; Tuberculose; Atenção Primária à Saúde; Estratégia Saúde da Família; Capacitação em Serviço.

RESUMEN

Objetivo: analizar el conocimiento de enfermeros de la Estrategia Salud de la Familia sobre la tuberculosis. **Método:** se trata de un estudio cuantitativo, descriptivo y transversal, con 22 enfermeras. Se utilizó, como instrumento de recolección, un cuestionario estructurado y adaptado. Se describieron las variables numéricas como media y desviación estándar y se resumieron las variables categóricas en frecuencias simples y porcentajes a partir de tablas. **Resultados:** se reveló, en cuanto a la recepción de capacitación sobre la temática de la tuberculosis, que el 77,27% refirió nunca haber sido capacitados. Se alerta, en relación a los signos y síntomas para un probable caso de tuberculosis, que el 68,18% no respondía de forma correcta. Se identificó que 86,36% acordaron sobre la duración del esquema terapéutico y los medicamentos utilizados en el tratamiento. Se destacó, en cuanto a los efectos medicamentosos, que todas las participantes respondieron de manera inadecuada. **Conclusión:** se evidenció un conocimiento superficial por parte de las enfermeras en la actuación contra la tuberculosis, lo que dificulta la estrategia de control de la enfermedad en el municipio, siendo necesaria la realización de capacitación sobre los diferentes aspectos relacionados a la tuberculosis. **Descriptores:** Conocimiento; Enfermeras; la Tuberculosis; Atención Primaria a la Salud; Estrategia Salud de la Familia; Capacitación en Servicio.

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INTRODUCTION

Tuberculosis (TB) has been a major global health problem for millennia, with high incidence and mortality rates.¹⁻² It is known that in 2015, 10.4 million people had tuberculosis worldwide and more than one million people died due to the disease.² Brazil is ranked 20th in the ranking of the countries with the highest burden of disease, and in 19th place, in terms of TB-HIV coinfection. The Americas account for around 3.0% of the world burden, with 268,000 new cases estimated, of which Brazil is the one that represents the greatest burden, with 33%.³ In Brazil, in addition, in 2016, the incidence of TB of 32.4/100 thousand inhabitants, and Sergipe appears with 28.6 / 100 thousand inhabitants, and that Lagarto/SE adds 29.7/100 thousand inhabitants.²⁻⁴

It is possible to consider aspects when discussing the maintenance of this disease in Brazil, among them, the difficulty of access to health services and the fragility of the disease control programs, in addition to the precarious socioeconomic conditions pointed out as important factors for the reproduction of the disease. In this sense, TB is used as a marker of social inequities in health linked to the permanent poverty condition of a large part of the population, especially in large urban centers.⁵⁻⁶

It is revealed that, despite the fact that, in 2015, Brazil reached the goal set at the millennium goals, with a reduction in the prevalence and mortality coefficients foreseen by the World Health Organization (WHO), the analysis of epidemiological and operational indicators demonstrated that tuberculosis control remains a challenge in the country.²

The Ministry of Health (MH), within its lines of action, encourages the sensitization of managers and professionals that make up the Unified Health System (UHS) with the purpose of strengthening knowledge and qualifying actions to control the disease. Thus, the managerial, organizational and technical-assistance qualification of the professionals that act in the control of TB.²

The Brazilian government was guided, through health policies, to the reorganization of the health care model in Brazil, presenting new perspectives with the creation of the Family Health Strategy (FHS) as the structuring axis of Primary Health Care (PHC). Priority is given, in the services provided, to prevention, promotion and recovery of health, in an integral and continuous way.^{5,7-8}

The nurse is an integral and essential professional of the FHS team in identifying respiratory symptomatology in the community, training community health agents (CHA) on the topic, requesting diagnostic exams, initiating treatment and guiding patients and family members on all aspects of infection. It is essential, in this context, the professional technical knowledge about TB to actively participate in the control and fight against this persistent public health problem.⁹⁻¹⁰

It is strengthened, given the importance of the knowledge of health professionals about TB, especially nurses, the study on the following guiding question: what is the knowledge of the FHS nurses about TB? The objective of this study is to analyze the knowledge of FHS nurses in relation to tuberculosis.

OBJECTIVE

- To analyze the knowledge of nurses in the Family Health Strategy on tuberculosis.

METHOD

This is a descriptive cross-sectional study with a quantitative approach carried out in the municipality of Lagarto, located in the central-southern region of the State of Sergipe. A distance from the capital (Aracaju) of 76 km is presented in Lagarto, with a territorial area of 969,577 km², with an estimated population of 103,188 inhabitants.¹¹

There are currently 15 Basic Health Units (BHU) in Lagarto, with 19 ESF teams and seven Strategies of Community Health Agents (CHAS), with a total of twenty-six nurses enrolled in the FHS and CHAS. Excluded from the sample were those nurses who did not work in the FHS and CHAS.

A structured questionnaire⁷ was used as a collection instrument⁷ consisting of 22 questions that include training and professional experience, nurses' knowledge about transmission, diagnosis, Directly Observed Treatment (DOT) and the late diagnosis of TB. It was emphasized that there was a pilot test with three nurses before the questionnaire was applied and, afterwards, modifications were made according to the presented considerations. Data was collected by accepting participation in the study by the nurses and after reading and signing the Free and Informed Consent Term).

Data was analyzed by the Epi Info 7.0 software (Centers for Disease Control and Prevention, Atlanta, USA). Numerical variables were described as mean and standard deviation and the categorical

variables were summarized in simple frequencies and percentages. For the association between the categorical variables, the chi-square and Fisher's exact tests were performed considering the level of significance of 95%. The responses were classified as adequate and inadequate, as recommended by the Ministry of Health.¹²

This study addresses the precepts of resolution 466.13 of the National Health Council, with the approval of the Ethics Committee of the Federal University of Sergipe, 2,321,227.

RESULTS

A total of 26 female nurse practitioners were obtained, but four did not agree to participate in the study. It was verified that the average age was 31.74 years, with standard deviation of 9.48. It was raised, in relation to the time of academic formation, that 72.72% are less than five years old. It was verified the titration of these professionals obtaining 18.18% with post-graduation Lato sensu in different areas of the current performance. It was identified that 63.63% developed their activities in the rural area and, regarding the receipt of training on the

subject of TB, 77.27% reported never having been trained while working in the study municipality.

It is exposed, according to table 1, that most of the nurses responded adequately about the transmitting agent of TB and half of them did not correct the form of transmission of the disease. The nurses were questioned about the number of days of treatment needed for the patient to eliminate their transmission potential and only 22.72% responded adequately. 50.00% of the sample was correctly answered on the diagnosis, especially on the main signs and symptoms and the main evidence leading to the cure. As for the signs and symptoms necessary for a probable case of TB, 68.18% did not respond correctly, according to table 2.

In relation to the treatment of infection, 86.36% were correct about the duration of the therapeutic regimen and the drugs used in the treatment. It is described, however, in relation to the basic guidelines that should be passed to the patient, that only 27.27% marked all the guidelines to be made correctly. It is also worth noting that when questioned about the effects of the drugs, 100% of respondents responded inadequately.

Table 1. Nurses' knowledge of the Family Health Strategy on the transmission of pulmonary tuberculosis, Lagarto, Sergipe, 2017.

TRANSMISSION	Adequated answer (n / %)	Inadequate answer (n / %)
What is the transmitting agent of tuberculosis?	20/90.90%	02/9.09%
What form of tuberculosis transmission?	10/45.45%	12/54.54%
Being a person contaminated but not yet developed, what is correct to say?	06/27.27%	16/72.72%
On how many days of correct treatment does the transmission danger drop to near zero?	05/22.72%	17/77.27%

Table 2. Nurses' knowledge of the Family Health Strategy on the diagnosis of pulmonary tuberculosis, Lagarto, Sergipe, 2017.

DIAGNOSIS	Adequated answer (n / %)	Inadequate answer (n / %)
What signs and symptoms would you suspect of tuberculosis?	11/50.00%	11/50.00%
How many signs and / or symptoms are needed for a probable case of tuberculosis?	07/31.81%	15/68.18%
What is the main evidence that leads you to believe that the disease was cured in an adult?	11/50.00%	11/50.00%

Table 3. Nurses' knowledge of the Family Health Strategy on the treatment of pulmonary tuberculosis, Lagarto, Sergipe, 2017.

TREATMENT	Adequated answer (n / %)	Inadequate answer (n / %)
What basic guidelines do you think should be passed on to the patient diagnosed with TB?	06/27.27%	16/72.72%
What is the duration of treatment for pulmonary tuberculosis?	19/86.36%	03/13.63%
What medicines are used to treat tuberculosis?	19/86.36%	03/13.63%
What are the main effects expected with the use of the medicines?	00/0%	22/100%
After how many days of patient absence is considered a case of abandonment of treatment?	10/45.45%	12/54.54%

It is inferred that, when questioned about the objectives of Directly Observed Treatment (DOT), 72.72% erred and 13.63% did not respond.

In a greater number of cases, the main factor contributing to the delay in diagnosis was the lack of preparation of the professionals for the identification of the disease, with (36.36%), followed by socioeconomic and cultural barriers (22.77%), the lack of preparation of professionals for the identification of the disease, (36.36%), involvement of the disease in the extra-pulmonary form (18.18%), lack of active search by professionals (13.63%), and difficulty in performing sputum smear microscopy (9.09%).

DISCUSSION

The FHS is intended to reorganize PHC in the country, in accordance with the provisions of the Unified Health System, considering it as a strategy to reorient the work process with greater potential to deepen the principles, guidelines and foundations of PHC. The FHS is characterized by a set of health actions, in the individual and collective spheres, which include promotion, health protection, disease prevention, diagnosis, treatment and rehabilitation. Among the axes of action, TB control is highlighted, attributing the performance of municipalities and control actions as PHC competence.¹⁴

TB control actions should be strengthened and expanded through health education work on knowledge about the disease, its symptoms, transmission and the importance of appropriate treatment, as well as possible side effects of the drugs. It is also important to train the nursing technicians of the FHS and CHA so that they know how to identify the possible cases and help in the treatment and cure of the disease.¹⁵

It is necessary, for this, that the nurse has knowledge about the disease and look for frequent updates. The study identified an unsatisfactory knowledge of nurses about TB, as well as the lack of specialists in family health, a fact that can make it difficult to

combat the disease and increase its complications due to inadequate or late treatment. It was verified, in a study carried out in the Southeast of Brazil, that the teams that worked with professionals specialized in family health presented better performance than those who did not have such qualification, especially regarding the performance in the PHC,⁷ evidencing that the professional qualification presents potential for the transformation of the health care model.

It was also verified the deficiency to act in TB control in a study carried out in Terezina / PI that investigated the knowledge of nurses and doctors about tuberculosis finding difficulties in the operation of the Tuberculosis Control Program (TCP) in relation to the daily work of the and structural and organizational deficiencies (input forecasting, insufficient training of professionals, bureaucracy), which play a major role in FHS activities.⁸

It is strongly influenced, through the time of professional nurses in the field of work, in the development of disease control actions, since there is a difficulty in establishing a link with users perceptible in many Brazilian municipalities. It is explained that there is a rotation of nurses by the current modality of hiring professionals in much of Brazil, prevailing temporary contracts without employment bond.¹⁶ It was identified in this study that most of the nurses had been working for less than five years in the municipality, a fact that corroborates the national literature and further weakens the construction of TB control tools.

In order to succeed in the implementation of TB control actions, it is necessary to have sufficient knowledge to act in the early diagnosis and treatment of the disease.¹⁷ It can be seen that more than half of the professionals interviewed responded inadequate information about TB transmission, which corroborates a study carried out in Foz do Iguaçu/PR, in which superficial knowledge regarding prevention, transmission, diagnosis and treatment was

obtained. Knowledge and attitudes that are inadequate for TB prevention.¹⁷ Thus, weaknesses in basic health activities such as the early diagnosis of TB and, as a consequence, difficult surveillance and control.

Regarding the identification and quantity of the signs and symptoms established for the TB case definition, it was noted that the nurses presented difficulties for the performance of search actions in respiratory symptomatic patients, since the unpreparedness was detected to detect the main signs and symptoms and limited knowledge about clinical diagnosis. Based on this finding, a study carried out in a municipality in Paraíba reveals that nurses have satisfactorily recognized the symptoms of TB.⁸

It is emphasized that it is a public health activity the early identification of people with cough for a time equal to or greater than three weeks (Respiratory Symptomatic), considered with suspicion of pulmonary tuberculosis, aiming at the discovery of the bacilliferous cases, since these are the main a source of dissemination of the disease, and early detection is an essential measure to interrupt the transmission chain and, consequently, reduce the incidence in the long term.¹²

Nurses were questioned about which is the main factor that contributes to the delay of the diagnosis, and the professionals' unpreparedness for the identification of the disease was the most cited. This situation raises doubts about the effectiveness of PHC services in Brazil, especially on the diagnosis of TB, delaying the detection of TB for specialized and hospital services.⁷

It was investigated, regarding the knowledge about the drug treatment of TB, that 86.36% considered the therapeutic scheme correctly. On the other hand, the main effects expected from the use of the drugs are not satisfactory. However, it is imperative that the expected effects be propagated to patients diagnosed as a way of guaranteeing adherence to treatment, since the lack of such information may be a limiting factor for adherence to treatment, leaving them vulnerable to drug failure and consequent bacterial multiresistance.⁶⁻⁸

It is recommended, in this sense, that DOT is an important tool for the therapeutic adherence of those diagnosed with TB, in addition to supervision of the medication, and we must listen in solidarity at home or in the BHU respecting the difficulties of patients and not those of the service⁸. From this, it is possible to establish relations of acceptance,

bonding and responsibility of the patient towards the treatment and with the health team.¹⁹⁻²¹ In this research, however, it was verified that the majority of the nurses responded erroneously on the DOT, which strongly hinders the implementation of this strategy.

The findings can be influenced by the lack of professional qualification since the training is inserted in the process of continuing education in health and has an important impact on the quality of care provided. It is essential, for the control of TB, the training to update knowledge about the disease, in addition to sensitizing professionals on the importance of active search.^{18,22-4}

CONCLUSION

It was identified, by the study, the superficial knowledge of the nurses in the action against TB, which hampers the strategy of control of the disease of the municipality, making it necessary to update the professionals regarding the subject analyzed. It is suggested that nurses be trained in different aspects related to TB, which will contribute to better Nursing care for the population.

Finally, it is hoped that the work will sensitize managers, professionals and the population, as well as provide a greater incentive for nurses to act in the control of TB in the municipality, with awareness of the importance of their roles in diagnosis, prevention, treatment, guidelines and consequent reduction in transmission of infection.

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