Original Article

FAMILY HEALTH NURSING ASSISTANTS KNOWLEDGE ON TUBERCULOSIS*

CONHECIMENTO DE AUXILIARES DE ENFERMAGEM DA SAÚDE DA FAMÍLIA SOBRE TUBERCULOSE

CONOCIMIENTO DE AUXILIARES DE ENFERMERÍA DE SALUD DE LA FAMILIA SOBRE TUBERCULOSIS

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This research aimed at identifying the knowledge of nursing assistants on Family Health Strategies for tuberculosis treatment. It is a descriptive and prospective study with a quantitative approach performed with 29 professionals of 16 Family Health Teams in the Municipality of São Carlos-São Paulo. A questionnaire based on material from the São Paulo State Secretary of Health was applied. Weaknesses in the knowledge on treatment, vaccination and tuberculosis symptomatology were identified. We believe that such gaps may compromise early case detection, treatment advice and clarification of doubts on the condition. Therefore, it is necessary to implement ongoing education strategies on the subject for these professionals, once they have a key role in tuberculosis control and patient treatment adherence.
Descriptors: Tuberculosis; Nursing Assistant; Family Health; Knowledge.

Esta pesquisa teve por objetivo identificar o conhecimento de auxiliares de enfermagem da Estratégia de Saúde da Família sobre tuberculose. Estudo descritivo, prospectivo, com abordagem quantitativa, realizado com 29 profissionais de 16 Equipes de Saúde da Família do Município de São Carlos-São Paulo, Brasil. Utilizou-se um questionário, baseado em material da Secretaria de Saúde do Estado de São Paulo. Foram identificadas deficiências no conhecimento sobre tratamento, vacinação e sintomatologia da tuberculose. Acredita-se que tais fragilidades possam comprometer a detecção precoce dos casos, as orientações sobre o tratamento e o esclarecimento de dúvidas sobre a doença. Desse modo, é necessário implementar estratégias de educação permanente sobre esta temática entre esses profissionais, uma vez que os mesmos têm papel fundamental nas ações de controle e de adesão dos pacientes ao tratamento da tuberculose.
Descritores: Tuberculose; Auxiliar de Enfermagem; Saúde da Família; Conhecimento.

El objetivo de la investigación fue identificar el conocimiento de auxiliares de enfermería de la Estrategia de Salud Familiar acerca de la tuberculosis. Estudio descriptivo, prospectivo, con enfoque cuantitativo, realizado con 29 profesionales de 16 Equipos de Salud de la Familia de la ciudad de São Carlos-São Paulo, Brasil. Se utilizó un cuestionario, basado en el material de la Secretaria de Salud del Estado de São Paulo. Se identificaron debilidades en el conocimiento sobre tratamiento, vacunación y síntomas de la tuberculosis. Se cree que estas debilidades pueden dificultar la detección temprana de los casos, la orientación sobre tratamiento y aclaración de las dudas acerca de la enfermedad. Así, es necesario implementar estrategias de educación continua sobre este tema entre los profesionales, ya que tienen papel clave en acciones de control de y adherencia de los pacientes al tratamiento de la tuberculosis.
Descriptores: Tuberculosis; Auxiliar de Enfermería; Salud de la Familia; Conocimiento.

INTRODUCTION

Tuberculosis (TB) is considered a priority among the country's health policies. The Health Vigilance Initiatives, the Basic Health Care Agreement and its inclusion in the Health Vigilance Secretary Strategic Agenda seek to eliminate this illness as a health problem until the year 2050[1].

The World Health Organization (WHO) estimated that in 2010, 6.2 million TB cases would be diagnosed and notified worldwide, out of which 5.4 million would be new cases, which accounts for 65% of all cases estimated for that year. Brazil is still among the 22 countries that concentrate 83|% of TB cases worldwide. In 2011, the State of São Paulo registered 16,016 new TB cases notified by SINAN, which represents an incidence of 38.5 million per each 100 thousand cases[1].

Seeking to establish effective TB control measures, the Tuberculosis Control National Program (PNCT) sets strategies to qualify health teams involved in the disease control and in particular, aspects related to the decentralization, horizontalization, prevention and integration of Basic Care services, strengthened through the Family Health Strategy (ESF). This decentralization offers the population a wider access to these services, thus reducing morbidity and mortality risks, reinforcing social control and granting the sustainability of such initiatives[2-3].

ESF gives priority to health prevention, promotion and recovery in an integral and continuous fashion, articulating initiatives developed by the entire health team. One of the team members is the Nursing Assistant, who takes specific TB control measures such as: identification of respiratory symptoms, collection of laboratory tests, educative initiatives, supervision of drug treatment, administration of the BCG vaccine, among others[4].

The participation of the nursing team is an important tool to carry out public health initiatives, especially those related to TB control, as these professionals grant supervised treatment (ST), thus avoiding complications that may stimulate interruption, relapse, collapse and TB resistance[5]. However, knowledge gaps among these professionals and lack of team training on the disease are not uncommon[6-8].

We believe that identifying the learning needs of these TB professionals may contribute to the TB decentralization plan, which is still not a reality in the municipality of this study, as well as in many other municipalities nationwide.

Considering the issues above introduced, the following questions have been elaborated: what do ESF nursing assistants know about TB? Does their knowledge meet standards recommended by the São Paulo State Secretary of Health? What do these professionals consider as their main responsibilities in the disease control?

METHODS

This is a descriptive, prospective and quantitative study performed in the September-December 2009 period, involving 29 (93.5%) out of 31 Nursing Assistants of the 16 ESF teams in the Municipality of São Carlos – SP, where the knowledge on TB of these professionals was evaluated. Two nursing assistants refused to participate in the study.

Data collection was performed through a structured instrument composed of self-applicable multiple choice closed questions. It was elaborated in agreement with the training material "Questions and Answers Booklet – Tuberculosis", developed by the Secretary of Health of the São Paulo State[9]. The instrument includes structured questions on the assistant's personal data (age, sex, schooling and

service term), his/her knowledge with regards to the disease and data on personal duties. Questions allowed for more than one answer.

Data was organized in Microsoft Excel® (Windows XP) charts and divided into the following topics: general knowledge, transmission means, diagnosis tests, prevention, signs and symptoms, treatment and nursing assistant duties, in agreement with the referred booklet[9]. Analysis was made through descriptive statistics (relative and absolute frequency).
The study was approved by the Human Ethics and Research Committee of the São Carlos Federal University (Regulation Nº 045/2009), in accordance with Resolution 196/96 of the Health National Council. Participants signed an Informed Consent Term.

RESULTS

The population studied was composed by 29 assistants, predominantly females (93.1%) between 30 to 39 years of age (44.8%) with complete secondary school (79.3%). With regards to their period of employment, 21 professionals (72.4%) said to have been in the institution for more than four years, out of which 12 (41.3%) reported more than 14 years of service.

Results of frequency distribution answers given by ESF Nursing Assistants according to their TB knowledge are introduced per topics, as shown in Table 1.

It was detected that more than 80% of these professionals recognized the infected agent, the main disease transmission ways and diagnosis tests used.

BCG vaccination was mentioned in 93.1% of all answers as an important tool to prevent the disease. However, chemoprophylaxis was not recognized as a preventive tool by 100% of interviewed assistants.

Coughing for more than 3 weeks was recognized by all interviewees as the most common sign of the illness, followed by sputum with blood (79.3%) evening temperature and weakness (62.1%).

Table 1 – Frequency distribution of ESF Nursing Assistants' answers (n=29) according to their knowledge on TB. São Carlos, SP, 2009

Issue	Answers	N (%)
General Knowledge	Infectious disease caused by the *Mycobacterium tuberculosis*, commonly called Koch Bacillus.	24 (82.8)
	Infectious disease that affects the lungs.	18 (62.0)
	It may also affect ganglions, kidneys, bones, meninges, etc.	11 (37.9)
	Infectious disease that affects the lungs caused by a virus	04 (13.8)
Transmission Means	Coughing	26 (89.7)
	Sneezing	20 (69.0)
	Talk	11 (37.9)
	Sharing patient objects	10 (34.5)
	Physical contact	09 (31.0)
Diagnosis Tests	Sputum culture	23 (79.3)
	Sputum bacilloscopy	23 (79.3)
	Thorax X ray	16 (55.2)
	Tuberculin PPD Test	12 (41.4)
Prevention	Through the BCG vaccine	27 (93.1)
	Improving nutrition and living conditions	15 (51.7)
	Through Bacilloscopy	04 (13.8)
	Through adequate medication	03 (10.3)
	With chemoprophylaxis	0
Signs and Symptoms	Coughing for more than three weeks	29 (100)
	Sputum, occasionally with blood	23 (79.3)
	Evening temperature	18 (62.1)
	Weakness	18 (62.1)
	Chills	13 (44.8)
Treatment	ST is for all patients	22 (75.9)
	RHZ* application (two months) and RH (four months)	15 (51.7)
	Patient hospitalization, medication and isolation.	03 (10.3)

* R=Rifampicin, H=Isoniazid, Z=Pyrazinamid.

The interviewees appointed nursing assistant duties in TB patient care in the following cases: arrangement of extra appointments whenever necessary (58.6%); development of educative initiatives together with the community (82.8%);

DISCUSSION

Most professionals researched demonstrated basic and consistent knowledge on the disease, which may have been enabled by long periods of work in the units, thus increasing chances to receive training. Human resources alternation does not help care continuity and integrality, making the interaction between the team and the patients more difficult[5,10].

We observed that assistants recognized the *Mycobacterium tuberculosis* as the TB agent, as well as its main transmission methods. However, there is still influence of some myths in the interviewee's opinions with regards to the ways of contagion such as the transmission through the sharing of patient's belongings. Similar myths are described in literature through TB patient stories, which generates wrong information on the disease[11].

Diagnosis tests more frequently mentioned by the interviewees were sputum culture and bacilloscopy (BK), being these traditional diagnosis methods[12].

Participants confirmed the importance of the supervised treatment (ST) as it enables to create a relationship, building patient acceptance and co-responsibility with regards to the treatment adherence and the health team[13]. The interaction between ESF and TB sufferers, in particular with those who abandoned treatment, helps to keep active care through the monitoring of the patient and his/her family's health conditions[14-15].

As for the drugs treatment and its duration, assistants still report doubts. This may compromise therapy, as these professionals offer patients advice with

assistance to the patient's family in order to keep him/her at home, avoiding contact with other people (20.7%); supervision of correct medication intake in ambulatory visits (96.6%) and advice on sputum collection (89.7%).

regards to medication means, intake period and combinations.

Therefore, there is a need for further TB knowledge by the group of nursing assistants studied, as well as a requirement for the organization of an integrated health system and the materialization of human resources policies that grant ongoing professional training and education, seeking to keep professionals informed and updated[3,16].

All interviewees appointed coughing during more than three weeks as one of the main disease signs. This knowledge also seems to be spread out amongst other ESF professionals[17].

A significant number of assistants considered the BCG vaccine as an effective TB prevention method. This affirmation is consistent with literature, once BCG does exert a protective power against serious primo-infection manifestations in children below 5 years of age[2,18].

Chemoprophylaxis consists of the use of isoniazid medication (H) for a period of six months, reducing the risk of disease in 60 to 90%. This treatment is reccomended for more serious cases, taking into account treatment guidelines according to the patient's age, the tuberculin test result and the disease risk. The PNCT has recently widened the recommendation for this prevention method[2]. This may explain the lack of information demonstrated by professionals with regards to this preventive measure.

As for the responsibilities of nursing assistants, most professionals are aware of their role in disease control, mainly through the supervision of the correct use of medicines during ambulatory visits (96.6%),

advice on sputum collection (89.7%) and the materialization of educative initiatives in the community (82.2%), seeking to avoid disease dissemination. When patients are cared by the assistants themselves, which implies a closer interaction, the assistant becomes a health care reference for their patients[15].

Promoting health education and multiplying supervised treatment are important strategies to reduce disease treatment abandonment rate. Lack of information or failure to understand treatment may provoke inadequate medication intake and/or treatment abandonment[13,19]. Besides, nursing professionals are the most involved in the operationalization of this kind of treatment[20].

Knowledge gaps on the disease by these professionals may compromise early case detections, treatment advice and clarification of doubts related to the condition. Inadequate human resources training directly affects the quality of services offered, being one of the main obstacles to grant integral health care services. The need for ongoing professional update for those already working in the public network should also be highlighted[5].

Consequently, incorporating TB control initiatives demands awareness, involvement, integration and articulation amongst those responsible for the different health care levels[21]. Besides, identifying nursing professional's knowledge levels on the disease is extremely relevant, as it helps us to detect gaps, perform a supervised treatment and search for respiratory symptoms. This allows for the correction and the improvement of professional competences related to the disease[16].

In this sense, ongoing education may be an important educational tool, as it contributes to critical reflection, enabling changes in interactions, processes, health initiatives and the qualification of people involved in health care[22].

CONCLUSION

The present study points at weaknesses in the knowledge on the disease demonstrated by nursing assistants, mainly in aspects related to treatment, symptomatology, BCG vaccine inoculation area and method, etc.

It is worth highlighting that these professionals play an important role in TB control and that such role may be negatively affected by the aforesaid knowledge gaps, thus compromising disease treatment and advice, besides making the search for respiratory symptoms more difficult.

Permanent education strategies on these issues should be stimulated, as besides qualifying professionals, they allow to share doubts and anguish, also helping to demystify concepts.

Acquiring technical and scientific knowledge on these topics by nursing assistants contributes to their recognition as essential professionals in this process. It also facilitates the development of the relationship between patients and professionals, which enhances treatment adherence, disease control and TB care improvements for patients and their families.

The development of studies that evaluate the daily routine and the perception of nursing assistants on their disease control actions are fundamental to widen knowledge on the subject and help to a better decision-making aimed at considering ongoing education in the area as a priority.

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