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## REVIEW

### The nurse and health education, providing care to patients with tuberculosis (TB) in a basic health unit

O enfermeiro e a educação em saúde, no atendimento aos portadores de tuberculose (TB) na unidade básica de saúde

La enfermera y la educación para la salud, de atención a los pacientes con tuberculosis (TB) en una unidad básica de salud

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### ABSTRACT

**Objective:** To reflect on the importance of the role of a nurse educator in tuberculosis control in primary care unit. **Method:** The study was a descriptive and exploratory, held in databases: LILACS, and SciELO BDEF from 2000 to 2010, where we selected 09 potential bibliographies. **Results:** The categories were "DOTS as a factor facilitating adherence to treatment", "the importance of the bond for the performance of the nurse educator" and "Factors that undermine the achievement of therapeutic success." **Conclusions:** The nurse is in a position to provides health education, promoting prevention, and teaching self-care, and developing programs involving society. **Descriptors:** Nursing care, Health education, Tuberculosis and primary care.

### RESUMO

**Objetivo:** Refletir sobre a importância da atuação do enfermeiro como educador no controle da tuberculose na unidade básica de saúde. **Método:** Estudo de caráter descritivo-exploratória, realizado nas bases de dados: LILACS, BDEF e SCIELO no período de 2000 a 2010, onde selecionamos 09 bibliografias potenciais. **Resultados:** As categorias emergentes foram "DOTS como Fator facilitador a adesão ao tratamento da tuberculose", "a importância do vínculo para a atuação do enfermeiro como educador" e "Fatores que fragilizam a obtenção do sucesso terapêutico". **Conclusão:** O enfermeiro encontra-se em uma posição mais propícia para a educação em saúde, favorecendo a prevenção, e ensinamento do auto-cuidado, e desenvolvendo programas que envolvam a sociedade. **Descritores:** Assistência de enfermagem, Educação em saúde, Tuberculose e atenção básica.

### RESUMEN

**Objetivo:** Reflexionar sobre la importancia del papel de una enfermera educadora en el control de la tuberculosis en la unidad de atención primaria. **Método:** El estudio fue descriptivo y exploratorio, realizado en bases de datos: LILACS, BDEF y SciELO desde 2000 a 2010, donde se seleccionaron 09 bibliografías potenciales. **Resultados:** Las categorías eran "DOTS como un factor que facilita la adherencia al tratamiento", "la importancia de la fianza para el desempeño de la enfermera educadora" y "Factores que socavan la consecución de éxito terapéutico". **Conclusiones:** La enfermera está en condiciones de proporciona educación sanitaria, la promoción de la prevención, y la enseñanza de auto-cuidado y el desarrollo de programas relacionados con la sociedad. **Descriptor:** Cuidados de enfermería, Educación para la salud, La Tuberculosis y la atención primaria.

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## INTRODUCTION

**T**uberculosis (TB) continues to receive special attention from health professionals and society as a whole. Still meets all the criteria for prioritization of a grievance in public health. Although there are technological resources can promote your control, there is still no prospect of getting up in the near future, its elimination as a public health problem, unless new vaccines or drugs are developed. Furthermore, the association of TB with HIV infection represents an additional challenge worldwide.<sup>1</sup>

This is a preventable disease, curable, and yet we still find resistance to the accession and continued treatment, causing the spread of disease and the creation of resistant strains, making the patient more vulnerable to disease.<sup>2</sup>

TB remains a major health problem worldwide. In 1993 the World Health Organization (WHO) has developed a new intervention proposal, DOTS (acronym for Strategy Supervised Treatment of Tuberculosis) which increases the likelihood of cure of patients depending on the warranty assisted treatment, contributing to the interrupting transmission of the disease, curing patients, reduces the transmission, prevents the emergence and spread. It is internationally recommended strategy.<sup>1</sup>

It is noteworthy that Brazil is one of 22 countries prioritized by the WHO, which represent 80% of the global burden of TB. In 2007, Brazil reported 72,194 new cases, corresponding to an incidence rate of 38/100.000 hab. Of these 41,117 were new smear positive cases (cases with positive sputum smear microscopy), with an incidence rate of 41/100.000 hab<sup>2</sup>. These indicators place Brazil in the 19th position in relation to the number of cases and the 104th position in relation to the incidence rate.<sup>1</sup>

Importantly 4,500 people still die annually from tuberculosis, curable and preventable. In most cases, the deaths occur in metropolitan areas and in hospitals. In 2008, TB was the 4th leading cause of death from infectious diseases and the 1st cause of death in AIDS patients.<sup>1</sup>

Both in developed and in developing countries, there is an increasing number of reported cases of tuberculosis in people infected with Human Immunodeficiency Virus (HIV). The association of these two diseases is a serious public health problem, which can lead to increased morbidity and mortality from TB in many countries.<sup>1</sup>

Our present study speaks about tuberculosis, pointed out how the research problem of how the nurse acts to achieve adherence to tuberculosis treatment? With the object of study, nurses and health education services to the patients of tuberculosis in primary care unit.

To emphasize adherence to treatment of patients with tuberculosis, we draw the following objectives: Reflecting on the importance of the role of a nurse educator in tuberculosis control in primary care unit.

Constantly in our daily lives, we see how patients and families are instructed in basic health units, allowing us to question the way the nurse educator acts against the treatment of tuberculosis.

In this context it is reported that the nurse educator must develop educational measures designed to improve the quality of life of society, as well as the inclusion of individualized care and educational activities that provide detailed information about the disease and certainly encourage the patient to the case, making it co-responsible for coping with their illness.<sup>3</sup>

The research is justified by the high rate of tuberculosis in our country and the large number of patients abandoning the treatment of tuberculosis, although this is offered in basic health units and is free.

The relevance of this study is the possibility to contribute to the understanding of tuberculosis control, reflecting the important role of the nurse as an educator in order to update them, showing the reality and providing reflective development, so they can change the reality of those who are treated by them.

## METHODOLOGY

This research is a descriptive exploratory because it is finding the search field and the interests and establish an initial survey of the situation, the priority problems and possible actions.<sup>4</sup>

In this context, it is worth noting the importance of defining and clearly explain the method and methodological procedures (type of research, bounded universe, data collection tool) that involve its implementation, detailing the sources in order to present the lenses that guided the entire process of investigation and analysis of the proposal.<sup>5</sup>

Data collection was performed with a survey of articles published during the years 2000 to 2010 in the journals indexed by the Virtual Health Library (VHL), using data specifically the Scientific Electronic Library Online (SciELO), Base nursing (BDENF) and Latin American and Caribbean Center on Health (Lilacs). We carried out a bibliographic queries ratings standardized by the World Health Organization (WHO).

We conducted a survey of the descriptors individually, these being: Nursing care, nursing in primary care, health education and Tuberculosis. 31.563 articles were located. They are specified in the table below.

**Table 1:** Distribution of quantitative bibliographies found in databases with individual descriptors

Descriptors	Database			
	SCIELO	BDENF	LILACS	Total
Nursing care	529	4.955	6.577	12.061
Nursing in Primary Care	35	138	203	376
Health Education	1.255	1.878	10.320	13.453
Tuberculosis	892	102	4.679	5.673
Total				31.563

We conducted a refinement found in the literature, so that we could better select the articles to be used in this research. They are:

**Table 2:** Systematic data (association process in trio and quartet).

Descriptors	Database			
	SCIELO	BDENF	LILACS	Total
Health education + Tuberculosis + Primary	0	1	2	3
Primary care + Tuberculosis	12	3	25	40
Nursing Care + Tuberculosis + Primary	0	0	0	0
Nursing care + Education + Health + Primary tuberculosis	0	0	0	0
Total				43

After the process of association with the descriptors, selected according to the research objectives proposed discarding the repeated, reaching the bibliography potential totaling 9 articles that met our goals.

After reading the data collected from the research literature on the subject for the study, they were grouped and organized as the similarities and confluences of meanings, concepts and explanations, seeking the construction of categories of analysis.

There were thus the following categories: DOTS Factor as facilitator adherence to tuberculosis treatment, the importance of the bond for the performance of the nurse educator; Factors that undermine the achievement of therapeutic success.

## RESULTS AND DISCUSSION

### DOTS as a factor facilitating adherence to tuberculosis treatment

This category shows that DOTS has been a great ally in the fight against tuberculosis. We highlight four articles that address the DOTS strategy as a factor facilitating adherence to tuberculosis treatment.

**Table 3:** Distribution of bibliographies of potential thematic category "DOTS as a factor facilitating adherence to tuberculosis treatment."

Monroe, Gonzales, Palha, Sasaki, Netto, Vendramini, et al. <sup>6</sup>	2008	Scielo Rev. esc. enferm. USP	Involving teams of Primary Health Care in Tuberculosis Control
Arcêncio, Oliveira e Villa. <sup>7</sup>	2007	Scielo Ciênc. saúde coletiva	Hospitalizations for pulmonary tuberculosis in the state of São Paulo in 2004
Hino, Costa-Júniora, Sasaki, Oliveira, Villa e Santos. <sup>8</sup>	2007	Scielo Rev. Latino-am. Enfermagem	Time series of tuberculosis mortality in Brazil (1980-2001)
Scatena, Villa, Netto, Kritski, Figueiredo, Vendramini, et AL. <sup>9</sup>	2009	Scielo Rev. Saúde Pública..	Difficulties of access to health services for the diagnosis of tuberculosis in municipalities in Brazil

The first study highlights the DOTS as a plan designed to increase the chance of cure, the patient receives the medication and has all its therapeutic observed by the health service contributing to interrupt disease transmission.<sup>6</sup>

And it stressed that adoption of this strategy requires a government commitment to ensuring resources for tuberculosis control; organize obligations to the discovery of the case; promote diagnosis by examination of sputum in patients with respiratory symptoms who seek existing programs; ensure regular supply of medicines and supplies for all laboratories and design an efficient information system to record and evolution of contaminated until healed.<sup>7</sup>

In a similar vein, in the second study, the authors emphasize that one of the key points highlighted today by WHO refers to the DOTS strategy, which brings the bulge five components, which are directed to the reorganization of the health system, namely the political commitment, the case detection by sputum smear microscopy, supervised treatment, uninterrupted supply of drugs and information system and registry.<sup>8</sup>

The third study believes that through the DOTS strategy, the mortality rate shows a decrease greater than the number of cases, especially in developing countries where there is low political compromise between the different levels of government and reduced involvement of civil society Tb.<sup>9</sup>

In this context the fourth search warrant that the strategy of Directly Observed Treatment, Short Course (DOTS) proposed by the World Health Organization (WHO) in 1993 and implemented in various regions of the world gave rise to the cure rates in many places, but still Control is difficult in developing countries.

We proved then that TB remains a problem to be studied because of its treatment depend on several factors, but there are treatments to prevent harmful effects on the body, through the use of simple actions and easily understood and applicability.

In this sense, we believe that nurses can engage in this battle and, through their knowledge and skills play an important role on the population highlighted, contributing to the transformation of this reality.

### The importance of the bond for the performance of the nurse as an educator

**Table 4:** Distribution of some potential bibliographies of the thematic category "The importance of the bond for the performance of the nurse as an educator."

Brunello, Ponce, Assis, Andrade, Scatena, Palha, Villa. <sup>10</sup>	2010	SciELO Acta Paul Enferm	The link in health care: systematic review of the literature, Brazil (1998-2007)
Sá, Souza, Nunes, Palha, Nogueira, Villa. <sup>11</sup>	2007	Lilacs Texto Contexto - Enfermagem.	Treatment of Tuberculosis in Health Care Facilities Family: story of abandonment.
Brunello, Cerqueira, Pinto, Arcínio, Gonzales, Villa, et AL. <sup>12</sup>	2009	Lilacs Acta Paul Enferm	Link ill-health professional in the care of patients with tuberculosis

In the first study, the authors point out that the demand for quality health services is growing, based on the evaluation of the service provided to users, who are the protagonists of the health system, so that we can rethink professional practices, seeking the improvement of the same.<sup>10</sup>

In this context, the authors emphasize that the establishment of the link between health professionals and users seem to be a possibility of building a new practice that seeks to improve the quality of health care, so that we can ensure the quality of care provided, is necessary to keep in mind the concepts of attachment and hence accountability for the care team to full collective and individual health.<sup>10</sup>

The second study argues that it is critical to listen to the complaints of the patient care setting and propose solutions together (health team and user), establishing a relationship guided the host and the bond.<sup>11</sup>

In the third study similar sense says that the ratio of bond is grounded in a relationship of understanding is to listen and offer support, narrating facts and cause the narration by the other. And also highlight that the bond assumes the existence of a regular source of care, and its use over time requires the establishment of strong interpersonal bonds that reflect the mutual cooperation between the people of the community and health professionals, constituting a major structural elements in the care and control of TB, since it permeates accountability, comprehensiveness, humanization, among others.<sup>12</sup>

Through our understanding, the bond can greatly contribute in adherence to treatment, the patient trusts the education offered by the health professional and properly meets the recommendations offered by him. But the relationship link should not generate dependency patient therefore should facilitate health education, encouraging patients to self-care, giving it autonomy from their treatment.

#### Factors that undermine obtaining therapeutic success

This category shows some factors that predispose resistance and non-adherence to TB treatment as shown in Table 5.

**Table 5:** Distribution of bibliographies of potential thematic category "Factors that undermine the achievement of therapeutic success."

Figueiredo, Villa, Scatena, Gonzales, Ruffino-Netto, Nogueira, et AL. <sup>13</sup>	2009	SciELO Rev. Saúde Pública.	Performance of primary tuberculosis control
Scatena Villa, Netto, Kritski, Figueiredo, Vendramini, et AL. <sup>9</sup>	2009	SciELO Rev. Saúde Pública.	Difficulties of access to health services for the diagnosis of tuberculosis in municipalities in Brazil
Monroe, Gonzales, Palha, Sasaki, Netto, Vendramini, et AL. <sup>6</sup>	2008	SciELO Rev. esc. enferm. USP	Involving teams of Primary Health Care in Tuberculosis Control
Olvera. <sup>14</sup>	2004	Bdenf Esc. de enf. Ribeirão Preto	Analysis of the program for prevention and control of tb in the jurisdiction tlalnepantla Mexico 2000/2002

The first study proposes that health services are organized for teams to incorporate family health activities in their responsibility for the development of actions for diagnosis, treatment and prevention of disease. And he adds that the delay in treatment schedules and incompatible with the shifts makes many individuals fail to seek health services reaching to abandon the treatment, since patients are afraid of losing their jobs due to the need of shortages and delays.<sup>13</sup>

For the second study the decentralization of TB to the FHP did not give satisfactory performance for access to diagnosis. The organizational form of TB care was not a determining factor for ensuring access to early diagnosis.<sup>9</sup>

In this context the third aspect of the study believes that interferes with the incorporation of TB control in UBS is the qualification of professionals, as they began to take actions and health programs never before implemented. Due to the lack of professional involvement, lack of respect and humanization of care to patients of TB can occur during supervised treatment in UBS.<sup>6</sup>

In turn, the fourth study adds the patient go from one service to another in search of diagnosis and treatment, often making use of wrong medication, as well as the need of treatment therefore increase the probability of noncompliance with treatment the patient.<sup>14</sup>

We proved then that the lack of organization of health services, the decentralization of tuberculosis for the post of family health, inadequate qualification of health professionals, and the delay in treatment schedules incompatible with work shifts and the patient go a service to another in search for diagnosing tuberculosis, contribute to the failure of drug therapy.

This leads us to believe that it is essential to nursing in caring for patients with TB, and that she be given consistently with the actual characteristics of the individual, in order to enable him to understand health and free decision-making.



## CONCLUSION

At the end of this study we can consider that the research objectives have been achieved and that the health education needs to be continuously discussed and understood as an important practice in the work of the attending nurse.

The nurse's primary care unit is in a position to provides health education, favoring prevention, yet a new model of care is necessary, with a focus on patient and service that serves them.

The technology available for tuberculosis control failed to adequately contain these disease if all available resources were made available to people in need surely this would be better epidemiological picture.

We find that we are far from achieving the recommended goals, mainly the abandonment of treatment, this reflects that health services are poorly organized to ensure adherence to treatment.

In this sense it is necessary to involve all health professionals in an attempt to obtain lower dropout rates, mainly because we are a country that has a high incidence of the disease.

We note that the link enables a more effective approach between practitioner and patient, thus establishing a relationship of trust, making the patient feel accepted. Facilitating relationships in order to both seek together solutions to problems and service improvement.

Besides the need for better use of technological resources, there is a clear need for research to develop new prophylactic, diagnostic and therapeutic.

In social territory is needed to eradicate poverty by giving more dignified conditions of society which generates hope for the eradication of various diseases, including tuberculosis.

The result of this study highlights the importance of professional basic health unit and health education offered by them to society, shows that nurses do not own and know that educating is not simply impose their knowledge, but to seek the development of a critical consciousness, where exchange of knowledge occurs for a better quality of life.

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