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RESEARCH

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# Acesso e vínculo ao tratamento de tuberculose na atenção primária em saúde

Acess and link to treatment of tuberculosis in primary health care

Acceso y enlace para tratamiento de la tuberculosis en atención primaria de salud

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### ABSTRACT

**Objective:** To evaluate the access to primary health care services for tuberculosis control, identifying the facilities and difficulties, besides analyzing the way patients are received by the multidisciplinary team. **Method:** An operational study performed in five Basic Health Units in Belém. The sample consisted of 34 patients with tuberculosis. The study was approved by the Research Ethics Committee, under Resolution n° 206.875. **Results:** It was discovered that the facilities found regarding access to treatment were the proximity between the Basic Health Unit and the patients' residence, reduced waiting time for consultation and the relationship established with the health team. The identified difficult was the lack of home visiting. **Conclusion:** The strengthening of the bond, the guarantee of access and the receptiveness by the health team are factors that can contribute to the success of treatment.

Descriptors: tuberculosis; access to health services; primary health care.

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#### RESUMO

**Objetivo:** Avaliar o acesso aos serviços de atenção primária à saúde para o controle da tuberculose, identificando as facilidades e dificuldades, além de analisar a forma como os doentes são acolhidos pela equipe multidisciplinar. **Método:** Estudo operacional realizado em cinco Unidades Básicas de Saúde do município de Belém. Constituíram a amostra, 34 doentes com tuberculose. Estudo aprovado pelo Comitê de Ética em Pesquisa, sob Parecer nº 206.875. **Resultados:** Constatou-se como facilidades para o acesso ao tratamento a proximidade da Unidade Básica de Saúde à residência dos doentes, o pouco tempo de espera para a consulta e o vínculo com a equipe de saúde. Como dificuldade identificou-se a não realização de visitas domiciliares. **Conclusão:** O fortalecimento do vínculo, a garantia de acesso e o acolhimento pela equipe de saúde são fatores que podem contribuir para o sucesso do tratamento.

**Descritores:** tuberculose; acesso aos serviços de saúde; atenção primária em saúde.

#### RESUMEN

**Objetivo:** Evaluar el acceso a los servicios de atención primaria de salud para el control de la tuberculosis, la identificación de las fortalezas y dificultades, además, analizar la forma en que los pacientes son recibidos por el equipo multidisciplinario. **Método:** Estudio operacional realizado en cinco Unidades Básicas de Salud de la Ciudad de Belém. Se constituyó la muestra 34 pacientes con tuberculosis. Estudio aprobado por el Comité Ético de Investigación, bajo la Resolución nº 206.875. **Resultados:** Se encontró como facilidades para el acceso al tratamiento la proximidad de la residência con la Unidad Básica de Salud, poco tiempo de espera para la consulta y el vínculo con el equipo de salud. La dificultad idenficada fue no realizar visitas a domicilio. **Conclusión:** El fortalecimiento de la fianza, la garantía de acceso y la recepción por el equipo de salud son factores que pueden contribuir al éxito del tratamiento.

**Descriptores:** tuberculosis; acessibilidad a los servicios de salud; atención primaria de salud.

## INTRODUCTION

Tuberculosis (TB) is a disease that still causes pain and suffering for the world population, being the second cause of death by infectious diseases in the world, with circa 8.6 million new cases and 940 thousand deaths in 2012. Concerning the 22 countries considered priority for the implementation of controlling methods, five countries had the highest rates of new cases: India (2.0 million – 2.4 million), China (from 0.9 to 1.1 million), South Africa (0.4 a 0.6 million), Indonesia (0.4 - 0.5 million) and Pakistan (0.3 - 0.5 million).<sup>1</sup>

Internationally, the World Health Organization (WHO) states that 22 countries concentrate about 80.0% of TB cases. Brazil is part of this group, occupying the 16<sup>th</sup> position regarding the absolute number of cases, and the 22<sup>nd</sup> position when evaluating the incidence coefficient.<sup>2</sup>

In Brazil, in 2013, 71.123 new cases of TB were diagnosed. When analyzing the regions, in the same year, one verifies that North, Southeast and Northeast regions have the highest incidence rates: 45.2, 37.1 and 34.7/100.000 inhabitants, respectively. The Brazilian states with the highest incidence rates are: Amazonas (70.6/100.00 inhabitants);

Rio de Janeiro (61.7/100.000 inhabitants); Mato Grosso (50.6/100.000 inhabitants); the Federal District has the lowest rate (10.8/100.000 inhabitants).<sup>2</sup>

The incidence of cases of the disease is a growing reality in Pará. At least seven cities are part of the group compound by 181 Brazilian cities with confirmed positive diagnosis, namely: Belém; Ananindeua; Marituba; Castanhal; Abaetetuba; Bragança and Santarém. According to the State Department of Public Health, in 2013, Belém occupied the third place in the ranking of Brazilian cities with the highest sickness rates in the country. There were over 1.300 cases, corresponding to 42% of people affected by the disease in the state, which has more than 3.400 registered cases of the disease.<sup>3</sup>

Currently, one of the most challenging aspects to control the disease is to reduce the abandonment of the treatment, as it results in increased mortality, incidence and multidrug resistance. In general, the causes of abandonment are associated with the patient, the prescribed treatment and the operationalization of Health Services (HS).<sup>4</sup>

The access to these services begins when the individual recognizes his/her need for health and looks for specific care. The term "access" can be defined as the entry in the health system, which implies the user's decision, often influenced by the lack of knowledge about the disease and its transmission mechanisms, or even by the fear of the diagnosis.

From the access, and the diagnosis of the disease, the effective adherence to TB treatment represents a challenge, and, therefore, it is essential to establish links between professionals and patients. This bond favors the professionals' perception about the difficulties and facilities faced by the patients, enabling the construction of strategies to facilitate the access to treatment. Furthermore, at the time health professionals awaken the patient's curiosity to fully understand the pathology, they can create possibilities for coping with the disease, strengthening even the social inclusion, especially when considering that most of the patients face precarious social conditions.<sup>5</sup>

The way the patient is received by professionals in HS influences on the treatment adherence. Knowing the social context they belong to, as well as their conditions of life, work and family relationships may strengthen the commitment and bond connection with these professionals.<sup>6</sup>

Under this context, the study's objective was to evaluate the access to primary health care services for TB control, identifying the facilities and difficulties of the users, and analyzing how TB patients are received by the multidisciplinary team. Thereby, it is important to consider the perspective of the Unified Health System (SUS) users, ever since their first contact with the health unit until the diagnosis and treatment of the disease, as the time taken to establish the diagnosis may influence the adherence and success of the treatment.<sup>7</sup>

## **METHODS**

This study was developed with an operational research conducted at four Basic Health Units (BHU) and one Teaching Health Center (THC), chosen for they have the highest number of newly diagnosed cases in 2011, namely: BHU Jurunas, BHU Guamá, BHU Marambaia, THC Marco and BHU Pedreira. The sample consisted of 34 sick people, representing 33.3% of the eligible population for the study.

The data was collected from March to April 2013, in three stages: 1) The number of sick people being treated in each one of the five BHU was calculated, by analyzing the Book of Registry and Monitoring of TB Cases (Green Book) and using the medical records for additional data; 2) The nurse from each BHU was contacted to schedule the interview with the patients, following the previous deadline already established by the unit for routine consultation.

At last, the data was collected along with the patients, using a questionnaire validated in Brazil<sup>8</sup>, with the objective of evaluating the performance of the primary care services that act for controlling TB. This instrument was organized from the items of the Primary Care Assessment Tool, developed and validated in order to assess the critical aspects of primary health care.

The obtained data were organized in spreadsheets of the software Microsoft Excel 2007, resulting in a database, thereafter analyzed in a descriptive way. The results were presented in texts and tables. Before the data collecting, the Informed Consent Form (ICF) was read in order to obtain the participants' consent, with respect to the ethical principles established by Resolution 196/96. This research was approved by the Research Ethics Committee of the Graduate Course in Nursing of the State University of Pará, under Resolution number 206.875.

## RESULTS

Regarding the sociodemographic characteristics of the participants, the following data was noted: the prevalence of men, corresponding to 52.9% (18), low education level, 61.9% (21), age group from 30 to 60 years, 76.5% (26), with an average of 45 years old. The family income reached, mostly, the maximum of up to three minimum wages, 82.1% (28). Most of the individuals, 73.52% (25), lived at their own home made out of brickwork, with four or more rooms, and 64.7% (22) were living with a significant number of people, corresponding to four or more by residence. Pulmonary TB was the most frequent clinical form, affecting 91.2% (31) of the patients. From all of the surveyed patients, 52.9% (18) were working and had to quit their jobs because of the disease.

Table 1 - Interfering factors for access to the diagnosis and
treatment of TB, Belém, Brazil, 2013.

Variables	AF	RF
TB Diagnosis' Site		
BHU	23	67.6
Reference first aid post	1	2.9
Public hospital	4	11.8
Private hospital	2	5.9
Private clinic	4	11.8
Number of visits until TB's diagnosis		
One	14	41.2
Two	12	35.3
Three	2	5.9
Four or more	6	17.6
Number of visits until the beginning of the treatment		
One	29	85.3
Two	3	8.8
Three or more	2	5.9
It took more than 60 minutes to be attended		
Always	7	20.6
Sometimes	3	8.8
Never	23	67.7
Do not know	1	2.9
Total	34	100

Regarding the access to HS, 67.6% (23) looked for primary care services in the public health system, for medical examinations, where they were diagnosed with TB. It is noteworthy that 57.8% (20) had to go more than once to the BHU to get access to diagnosis, and 17.6% (six) underwent the examination only after four or more attempts (Table 1).

After establishing the diagnosis, 85.3% (29) of patients started the treatment in the following visit to the BHU, and 14.7% needed two or more visits to the HS in order to start the specific treatment. Concerning the waiting time in the BHU, 67.7% (23) waited an hour to be attended and 20.6% (seven) reported that the waiting time was always higher than one hour (Table 1).

**Table 2** - Preponderant factors for access to BHU by TBpatients, Belém, Brazil, 2013.

Variables	AF	RF
Search for services close to resi- dence		
Yes	28	82.4
No	6	17.6
Difficulties in going to the BHU		
Always	5	14.7
Sometimes	4	11.8
Never	25	73.5

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(Continuation)
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Variables	AF	RF
Transportation expenses to the service		
Always	8	23.5
Sometimes	3	8.8
Never	23	67.7
Loss of appointment to go to the consultation		
Always	4	11.8
Sometimes	6	17.6
Never	24	70.6
Total	34	100.0

Among the participants, 70.6% (24) said they had not lost any kind of appointment to attend the consultations, although 52.8% (18) are adults in full labor activity. It is also noteworthy the fact that most (82.4%) of participants live near the BHU, a positive factor for the continuity of the treatment, causing them not to visualize difficulties in going from home to the HS, and vice versa (73.5%). Despite the assessment made by the participants, regarding the proximity between home and BHU, still, 23.5% (8) reported financial expenses with transportation necessary to make the route to the HS (Table 2).

Table 3 - Characterization of care for TB patients, Belém,Brazil, 2013.

Variables	AF	RF
Attended by the same professional		
Always	34	100.0
Sometimes	0	0.0
Never	0	0.0
Do not know	0	0.0
Have their doubts answered by the same professionals		
Always	33	97.1
Sometimes	0	0.0
Never	0	0.0
Do not know	1	2.9
The professionals comprehend them		
Always	33	97.1
Sometimes	1	2.9
Never	0	0.0
Do not know	0	0.0
Clear answers from the professionals		
Always	33	97.1
Sometimes	1	2.9
Never	0	0.0
Do not know	0	0.0
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Variables	AF	RF
Time availability during consultation		
Always	32	94.2
Sometimes	1	2.9
Never	0	0.0
Do not know	1	2.9
Professional's talking about other problems		
Always	10	29.4
Sometimes	9	26.5
Never	15	44.1
Do not know	0	0.0
Professional's explanation about the medication		
Always	26	76.5
Sometimes	5	14.7
Never	3	8.8
Do not know	0	0.0
Question about medications in use		
Always	18	52.9
Sometimes	9	26.5
Never	7	20.6
Do not know	0	0.0
Professional's home visiting		
Always	0	0.0
Sometimes	0	0.0
Never	34	100.0
Do not know	0	0.0
Total	34	100.0

The evaluation of the receptiveness by the health professionals at the BHU, considering the care received in the TB-specific consultation, was generally satisfactory. The fact that 100% (34) of the patients are attended by the same professionals contributed to constructing a relationship of trust between them and the health team. This bond allowed 97.1% (33) of the patients to state that they feel free to express their questions, concerns, anxieties and fear about the disease. The patients feel comprehended and have their questions answered by the professionals.

Nevertheless, when observing the answers, the health professionals, during the consultations, prioritized signs/ symptoms of TB, showing no interest in other health problems, as reported by 44.1% (15) of patients, which, if considering the answers with partial evaluation, reaches 70.6% (23) of the total, as shown in Table 3.

The home visiting is not common in these HS, as no patient received visits from professionals in their homes (Table 3), resulting in the loss of opportunity to set guidelines for the treatment, monitoring the clinical course of patients and physical examinations, in addition to not strengthening the link between the patient and the healthcare team.

## DISCUSSION

Men are more affected by TB, perhaps because they are more present in the labor market and, consequently, more exposed to the disease, a similar result to what studies conducted in an administrative district of São Paulo<sup>9</sup> found: men, regarding either social, cultural or economic factors, may be more exposed to the bacillus. The prevalence of the disease from 30 to 60 years may be related to the same reason of higher exposure by the adults, associated with the gradual process of aging.

The higher prevalence in economically disadvantaged population reflects the social nature of the disease, as well as the prevalence of low educational level, which acts as a barrier to access HS, impacting negatively on the early diagnosis of the disease. The lack of knowledge about the clinical symptoms may be crucial for people not to seek the HS, a conclusion evidenced by a study conducted in São Paulo<sup>10</sup> when analyzing the profile of patients who died due to TB.

It was possible to identify among the participants, the priority of looking for the diagnosis in the BHU of their home district, possibly due to the credibility of the service considered by the population or the ease access to care and diagnosis of TB, or, still, to non-availability of funds for expenses with transportation. A study about TB patients' satisfaction regarding the HS, conducted at a city at São Paulo which is priority for disease control<sup>7</sup>, showed that the proximity between the health unit and the user's residence, as well as the cost of transportations, are factors that influence positively or negatively on the access to these services.

According to the data obtained in this study, the proximity between home and the BHU can contribute to the diagnosis and treatment of TB, since it avoids possible expenses with transportation and reduces the travel time to the HS. This fact has the potential to impact positively on the patient's relationship with the health team, different from the results presented in a study conducted in Ribeirão Preto<sup>11</sup>, which showed the search for health units more distant from the users' home because of the stigma of the disease.

Another study conducted in an administrative district in the city of São Paulo<sup>9</sup> showed that the distance to the health unit for TB treatment is a problem, resulting in financial costs to patients, and causing the loss of appointments by the need to attend the scheduled consultation. However, in this study, it was observed that few patients had expenses with transportation and loss of appointments because of the medical consultations to perform the treatment. Furthermore, most of the patients reported never having waited more than 60 minutes for the consultations, a positive aspect for the adherence. Waiting too long to be attended in BHU may result in absences to the following consultations and even the abandonment of the treatment. Despite choosing the BHU near home for the attendance, one observes that the diagnosis was only determined after more than one search attempt in the HS. Therefore, the delay in diagnosis, among other factors, is related to the lack of qualification of the multidisciplinary team, an inappropriate environment for the attendance, or even the delay in obtaining the examinations results.<sup>12</sup>

The access to diagnosis is essential for controlling TB; however, breaking the disease's chain of transmission occurs only after eliminating the source of infection, requiring, then, the accomplishment of the treatment progressing to healing. In this study, 85.3% of diagnosed cases started the treatment at the first consultation soon after the diagnosis was determined; however, it is necessary that all patients start the treatment immediately after confirming the disease. The fact that some patients need to go twice or more times to the BHU to start the specific treatment contributes to the persistence of infection sources in the community, in addition to increasing the human suffering of those who are sick.

Nevertheless, the difficulty of access to start the treatment may influence the abandonment rates, given the possibility of the patient not returning to the BHU due to the obstacles. A study conducted in the state of São Paulo<sup>13</sup> concluded that the success in TB treatment happens only if there is a bond between the professional and the patient. The bond is responsible for creating the mutual cooperation, contributing to the treatment adherence and reducing the possibility of abandonment, as users will be more comfortable and safe to express their doubts about the treatment, difficulties and expectations.

It is noteworthy that this study identified that the service is usually performed by the same professionals, which provides enough time for the patient to express his/her concerns. In the patients' perception, the health team comprehends the reported problems and clearly answers their questions. This is, then, a positive aspect, as it strengthens bonds and establishes interpersonal ties, resulting in mutual cooperation between patients and professionals, making them understand the importance of the treatment and allowing the professional to intervene in health problems, easing anxieties and pains.<sup>14</sup>

Strengthening bonds between health team and patients also occurs through home visitations, an activity common to all members of the multidisciplinary team and a way for professionals to know the reality and the social environment where the individual lives. Home visiting helps accessing the treatment and the way the individual relates to the health team, as it allows the professional to individualize the treatment of TB.<sup>15</sup>

Therefore, the access can facilitate or hinder the ability of people to use the HS, and is related to several factors, such as: the type of attention required by the user, access and entry criteria, availability of professionals, distance to get to the HS, hours of operation and quality of care.<sup>16</sup>

Access is an important indicator of the impact of Primary Health Care, and can evaluate the control of TB. Aspects such as geographical distance between the BHU and the patient's residence, the operating dynamics of the HS and the level of tolerance to wait for consultations must be considered by the health teams to achieve better results in controlling the disease. All of this is appreciated by the patient who looks for health care.<sup>15</sup> A possible limitation of the study is including only the BHU with the highest number of TB cases, which may not describe the reality of the others.

## CONCLUSION

This study describes some factors that influence on the access to TB treatment, enhancing the bond between health professionals and patients, essential for the continuity of the treatment. Another relevant aspect is the clarity of the information provided by the team during consultations, which may be decisive for the patients' return for later consultations. Thereby, the health team must be comprehensive in order to listen to the patient, receive him/ her and perform the procedure in an exclusive way.

The results are important as they confirm that the diagnosis is being held in the BHU, as recommended by the standards of the National Program for Tuberculosis Control. This study emphasizes the behavior, insistent, in a certain way, of the patients looking for the HS, strengthening the discovery of cases at these BHU. However, the fact that they are not always attended at first may threaten the diagnosis.

The relatively short time that patients wait to be treated is a positive aspect in controlling the disease, though a routine to provide care to all spontaneous demand must be ensured at the BHU, in addition to those referenced by other services. It is necessary to expand the offer for diagnosis in the first search for the HS by those with respiratory symptoms.

Economic and professional aspects were not obstacles for patients to go to services. When attended by the same professional, they establish emotional bonds, which can be decisive for the treatment's continuation, since the contact between the healthcare team and the patient exclusively occurs at the BHU, without home visiting.

Among the identified difficulties is the lack of home visitations, an unfavorable situation, as this activity allows knowing the socioeconomic context in which they live and identifying their difficulties during the treatment. Strengthening the bond, ensuring the access and the receptiveness by the health team are factors that can contribute to successful treatments, positively influencing on the disease control, therefore preventing the occurrence of multidrug resistance cases, which denotes loss of control of the disease. A possible limitation of the study is including only the BHU with the highest number of TB cases, which may not describe the reality of the others.

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