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RESEARCH

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ASSESSMENT OF ACCESS TO TUBERCULOSIS TREATMENT FROM THE PERSPECTIVE OF USERS IN PRIMARY CARE

Avaliação do acesso ao tratamento de tuberculose sob perspectiva dos usuários na atenção primária

Evaluación del acceso al tratamiento de tuberculosis desde la perspectiva de los usuarios en la atención primaria

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ABSTRACT

Objective: to evaluate access to treatment in people with Tuberculosis in Primary Health Care. **Methods:** this is a cross-sectional, descriptive and observational study, with a quantitative approach, carried out in the city of Caxias-Maranhão. A sample of 133 participants was obtained, but 100 patients were interviewed. **Results:** the highest prevalence occurred in men 55 (55%), with incomplete primary education 57 (57%). It was also noticed that access to treatment is centralized and geographic indicators were considered satisfactory, such as treatment at the nearest unit 100 (100%), medical consultation in 24 hours 91 (91%), medicines 99 (99 %), less than 60 minutes to consult 87 (87%). **Conclusion:** thus, this study demonstrated a significant association in relation to the treatment of tuberculosis in view of the study variables. Therefore, ensuring access is not sufficient for the success of treatment, reflecting the need for new strategies aimed at promoting the population's health.

DESCRIPTORS: Tuberculosis; Infectious disease; Evaluation of health services; Access to health services; Nursing.

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RESUMO

Objetivo: avaliar o acesso ao tratamento em pessoas com Tuberculose na Atenção Primária à Saúde. **Métodos:** trata-se de uma pesquisa transversal, descritivo e observacional, com abordagem quantitativa, realizada na cidade de Caxias-Maranhão. Obteve-se uma amostra de 133 participantes, porém foram entrevistados 100 pacientes. **Resultados:** as maiores prevalências ocorreram em homens 55 (55%), com ensino fundamental incompleto 57 (57%). Percebeu-se também, que o acesso ao tratamento é centralizado e os indicadores geográficos foram considerados satisfatórios, como, realização do tratamento na unidade mais próxima 100 (100%), consulta médica em 24 horas 91 (91%), medicamentos 99 (99%), tempo menor de 60 minutos para se consultar 87 (87%). **Conclusão:** desta forma, este estudo demonstrou associação significativa em relação ao tratamento de tuberculose diante das variáveis de estudo. Portanto, garantir o acesso não é suficiente para o êxito do tratamento, refletindo a necessidade de novas estratégias que visem a promoção da saúde da população.

DESCRITORES: Tuberculose; Doença infectocontagiosa; Avaliação de serviços de saúde; Acesso aos serviços de saúde; Enfermagem.

RESUMEN

Objetivo: evaluar el acceso al tratamiento en personas con tuberculosis en Atención Primaria de Salud. **Método:** estudio transversal, descriptivo y observacional, con enfoque cuantitativo, realizado en la ciudad de Caxias-Maranhão. Se obtuvo una muestra de 133 participantes, pero se entrevistó a 100 pacientes. **Resultados:** la prevalencia más alta ocurrió en hombres 55 (55%), con educación primaria incompleta 57 (57%). También se observó que el acceso al tratamiento está centralizado y los indicadores geográficos se consideraron satisfactorios, como el tratamiento en la unidad más cercana 100 (100%), consulta médica en 24 horas 91 (91%), medicamentos 99 (99%), menor 60 minutos para consultar 87 (87%). **Conclusión:** por lo tanto, este estudio demostró una asociación significativa en relación con el tratamiento de la tuberculosis debido a las variables del estudio. Por lo tanto, garantizar el acceso no es suficiente para el éxito del tratamiento, lo que refleja la necesidad de nuevas estrategias destinadas a promover la salud de la población.

DESCRIPTORES: Tuberculosis; Enfermedad infecciosa; Evaluación de servicios de salud; Acceso a servicios de salud; Enfermería.

INTRODUÇÃO

Tuberculosis (TB) is an infectious disease that has as etiological agent the Mycobacterium tuberculosis or Koch's bacillus (KB), is worldwide one of the main problems of public health, which requires the development of strategies for its control.[1-2]

Brazil is part of the group of 30 countries with the highest burden of the disease in the world prioritized by the World Health Organization, occupying the 20th position in absolute number of cases. It is also noteworthy for its participation in the BRICS (block formed by Brazil, Russia, India, China and South Africa), whose countries account for about 50% of tuberculosis cases in the world.[3]

Among the states that make up the Northeast region, Maranhão occupies the fourth position per region in cases of TB, with eight municipalities considered a priority for the control of the disease, being Açailândia, Caxias, Timon, Imperatriz, São Luís, São José de Ribamar, Paço do Lumiar and Codó because they have a population above 100,000 inhabitants and a high bacillary load, with an incidence of 28.9/100,000 inhabitants and a mortality rate of 2.3/100,000 inhabitants.[4]

In the municipality of Caxias, one of the state's priorities, according to data from the Sistema de Informação de Agravos de Notificação (SINAN), between the years 2015 and 2017, 203 cases of tuberculosis were reported, thus presenting a high percentage of patients with the disease.[5]

Studies conducted with the objective of evaluating access to treatment for TB patients have proven to be fundamental, since they demonstrate the improvements that are necessary to improve the execution of the program, such as access to and adherence to treatment.[1,6-7]

The evaluation of access to treatment for this pathology is of utmost importance for the development of intervention measures aimed at the dissemination of knowledge about the disease and access to treatment. Thus, research is essential for the construction of indicators to update data on the subject, since there is a need to help professionals with TB patients.

From this perspective, this study aims to evaluate the access to treatment in people with Tuberculosis in Primary Health Care.

METHODS

It is a transversal, descriptive and observational research, with a quantitative approach, carried out through the collection of data provided by the Epidemiological Surveillance of the Vigilância Epidemiológica da Secretaria Municipal de Saúde do município de Caxias (MA), with information from SINAN.[5]

The survey was conducted in 10 Basic Health Units (BHU) in the municipality. The sample selection considered the total number of patients diagnosed with tuberculosis in follow-up with the BHU, corresponding to a population of 203 patients, for the period 2015-2017. The initial calculation determined that 133 patients should be evaluated, however, 100 TB patients participated in the survey, because 20 refused and 13 were not found in their homes.

The data collection took place in the year 2018, from March to June, lasting approximately three months. Home visits were carried out with the Agentes Comunitário de Saúde (ACS) of the respective UBS, explaining the objectives of the study and application of the questionnaire to patients at the homes and health posts.

The following inclusion criteria were established for the research: patients over 18 years of age, residents of the municipality of Caxias-MA, cured patients who were discharged and those under treatment. The following exclusion criteria were used: patients accompanied in the prison system, being a resident of a rural area and/or neighborhood without Family Health Strategy coverage, and being a patient with the following situations of closure in the program: death from tuberculosis or other causes.

The assessment instruments were based on the Primary Care Assessment Tool (PCAT), already used by another study.[8] This instrument, which assesses each of the dimensions of APS, was adapted and validated for Brazil through its application in the city of Petrópolis/RJ and, subsequently, was adapted for TB.[9-10]

The interviewee answered each question in the questionnaire according to a pre-established possibility scale, Likert type, which was assigned a value between zero and five. The value zero assigned to the answer "don't know" or "don't apply", and the values one to five will record the degree of preference (or agreement) with the statements: never, almost never, sometimes almost always and always.[10]

For each question an average score was determined that corresponds to the sum of the scores (categories) of the patient responses, divided by the total of patients interviewed. This mean score was classified as: unsatisfactory (values close to one and two); regular (close to three) and satisfactory (close to four and five).[6]

The data analysis was performed using the Excel® 2003 for Windows spreadsheet, and were later submitted to statistical analysis using the Statistical Package for the Social Sciences® (SPSS version 20.0). The data were statistically analyzed based on the variables of interest for the study, and organized in tables and graphs, and their discussion was carried out through the use of relevant literature.

The chi-square test was applied to evaluate the treatment access variables in relation to the sex variable. The association will be statistically significant when the value of $p<0.05$.

In consonance with what is required by the guidelines and regulatory norms of research involving human beings, recommended in Resolution nº 466/2012, the research was submitted to the Committee of Ethics in Research in Human Beings, approved with opinion nº 2,789,168 on July 28, 2018.[11]

RESULTS

We interviewed 100 patients with tuberculosis, the data indicated that the majority of the population studied is male 55 (55%), incomplete elementary school 57 (57%), in relation to the place and condition of housing, it was observed that 87 (87%) lived at home, Of these 98 (98%) are masonry houses and two (2%) corresponded to others (in street situation), as to the number of rooms per house 51 (51%) have five rooms or more, (36%) four rooms and (11%) three rooms, Table 1.

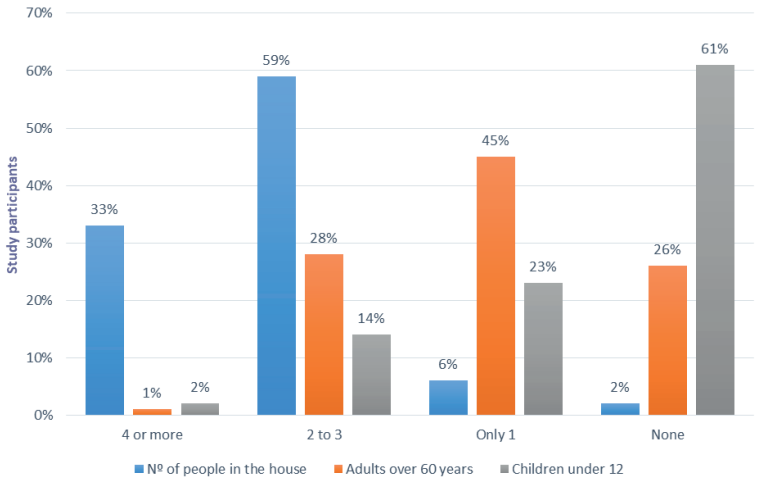
Table 1 - Sociodemographic profile of patients diagnosed with tuberculosis seen in Primary Health Care. Caxias, MA, Brazil, 2018

Variables	N	%
Sex		
Male	55	55,0
Female	45	45,0
Schooling		
Without Schooling	17	17,0
Elementary School (1st degree incomplete)	57	57,0
Elementary School (1st grade complete)	8	8,0
High School (2nd grade incomplete)	11	11,0
High School (2nd grade complete)	7	7,0
House		
Own	87	87,0
Rented	11	11,0
No housing	2	2,0
Type of housing		
Masonry	98	98,0
Other	2	2,0
Number of rooms		
3 Rooms	11	11,0
4 Rooms	36	36,0
5 Rooms or more	51	51,0
None	2	2,0
Total	**100**	**100,0**

Source: Data from the study, 2018.

Regarding the number of residents per household, 33 (33%) had four or more people living in the same house, 59 (59%) two to three people, six (6%) only one person, and two (2%) did not live with any relative. For adults over 60, one (1%) had four or more elderly people in the home and 26 (26%) had no elderly people in the home. Regarding children under 12 years of age, one house (1%) had four or more children and 61 (61%) had no children at all, Chart 1.

Graph 1 - Data regarding the number of family members living with the study participants diagnosed with tuberculosis. Caxias, MA, Brazil, 2018



Source: Data from the study, 2018.

Table 2 - Characterization of the access of users in Primary Health Care. Caxias - MA, Brazil, 2018

Variables	N	%	Sex				P
			Female		Male		
			n	%	n	%	
Medical Consultation for Control and Supervised Treatment at BHU							
Yes	100	100	45	45	55	55	0,000[c]
Treatment at the nearest health unit[a]							
Always	100	100	45	45	55	55	0,000[c]
Medical consultation within 24 hours if you are ill with TB or medication[a]							
Never	3	3	1	33,3	2	66,7	0,302
Sometimes	2	2	1	50	1	50	
Almost always	4	4	0	0	4	100	
Always	91	91	43	47,3	48	52,7	
Information or making an appointment by phone[a]							
Never	95	95	41	43,2	54	56,8	0,107
Sometimes	5	5	3	60	2	40	
Motorized transport to go to the consultation[b]							
Always	23	23,0	7	30,4	16	69,6	0,031[c]
Almost always	23	23	9	39,1	14	60,9	
Sometimes	39	39	22	56,4	17	43,6	
Almost never	4	4	4	100	0	0	
Never	11	11	3	27,3	8	72,7	
Expenditure on transport to consult[b]							
Always	18	18	4	22,2	14	77,8	0,042[c]
Almost always	16	16	5	31,3	11	68,8	
Sometimes	41	41	25	61	16	39	
Almost never	5	5	3	60	2	40	
Never	20	20	8	40	12	60	
Lack of medication during treatment[b]							
Sometimes	1	1	1	100	0	0	0,267
Never	99	99	44	44,4	55	55,6	
Time greater than 60min in consultation[b]							
Almost always	2	2	2	100	0	0	0,091
Sometimes	3	3	2	66,7	1	33,3	
Almost never	8	8	1	12,5	7	87,5	
Never	87	87	40	46	47	54	
Home visit by the professional who accompanies the treatment[a]							
Never	96	96	43	44,8	53	55,2	0,560
Sometimes	1	1	0	0	1	100	
Almost always	1	1	1	100	0	0	
Always	2	2	1	50	1	50	
Total	**100**	**100**	**45**		**55**		

Source: Data from the study, 2018. [a]Categories of answers to the questions that composed the variable: 1=never; 2=when never; 3=times; 4=when always; 5=always; [b]Categories of answers to the questions that composed the variables: 5=never; 4=when never; 3=times; 2=when always; 1=always; [c]Statistically significant.

As for the variables control medical consultation, supervised treatment in UBS and treatment in the post near the residences, the results showed that all obtained 100 (100%) with satisfactory evaluations and extremely significant BHU results, Table 2.

Regarding the variable, medical consultation in 24 hours, 91 (91%) of the patients confirmed that they always had a consultation within this period, with satisfactory performance, but with a non-significant result for the study (p=0.302).

However, the variables, use of motorized transportation to go to the consultation and travel expenses, corresponded respectively to 39 (39%) reported that sometimes they made use of transportation and 41 (41%) sometimes paid, obtaining regular evaluations and significant results in both indicators.

In the variable, receive home visit by the professional, 96 (96%) of the patients evaluated in an unsatisfactory way, similar to the information indicator or appointment by telephone, with 95 (95%) of answers, and both did not present significant results in the survey (p=0.560; p=0.107).

Finally, the lack of medication during treatment was not something that occurred for most people with TB as well as waiting for more than 60 minutes to be consulted, being 99 (99%) and 87 (87%) respectively evaluations satisfactory, but both were not significant based on the data obtained (P=0.267; P=0.091).

DISCUSSION

The results found demonstrate, as in another study, that TB still affects in most cases people in social vulnerability, that is, those with precarious socio-demographic conditions, with low schooling and high household density. In this study, patients living with one to two people are the majority, but the percentage of those living with four or more people is worrying.[12]

The survey showed a higher prevalence of TB cases in males, a pattern similar to that found in studies conducted in the states of Minas Gerais, Paraná and Belém, respectively.[7,13-14] In contrast, a study conducted in Curitiba, the highest prevalence was in females (90%).[15]

Gender, in addition to making a risk for TB development, defines different ways of confronting and social consequences of the disease, inherent to men and women. In this sense, men reject treatment because of their ability to lose wages and jobs, since in most families they present themselves as the only and largest source of family income.[16]

As a social indicator, the low level of education can negatively influence the perception of the disease and less self-care, delaying the demand for health services and, consequently, the diagnosis and treatment of TB, reflecting the precarious socioeconomic conditions that increase vulnerability to the disease.[17-18] This finding is similar to studies conducted in Rio Grande do Norte and Campina Grande.[19-20]

Regarding the place and housing condition, a parcel has better housing conditions, however, small environments, humid, closed and with clusters of people favor the transmission of the disease that occurs by air. It is clear that the risk for TB development in households with more than four people has been considered about three times higher when compared to two or less.[21]

Similar results to these were found in another study in Paraná.[13] In dissonance with these data, a study conducted in Campina Grande found that 64.2% said they lived with four or more people.[20]

The offer of medical appointments with ease may indicate that the reference units maintain the regularity of control appointments, ensuring the monitoring of the evolution of TB treatment and encouraging the correct use of medication.[1,4,22] Studies conducted in Juiz de Fora and Maranhão corroborate those found in the research.[7,23]

It was possible to identify, as a priority among the participants, the search for treatment at BHU in the neighborhood of residence, possibly the ease of access to care, diagnosis and treatment of TB, economy with transportation and reduction in travel time.[24] In an analogous study conducted in Teresina, it reinforces the findings of the research, however, the study conducted in Campina Grande-PB, 69% did not do the treatment in health units near their home.[20,25]

Regarding the medical consultation in 24 hours, the study in Itaboraí - RJ corroborates what was found in the research.[26] The results are favorable, indicating guaranteed access to health service. This aspect reduces the incidence of abandonment to treatment since health professionals are accessible to guide, evaluate and monitor the patient's health status.[13,27]

In these services, after the patient's entry in the National Plan for Tuberculosis Control, all the care is performed directly by the team, and this should facilitate the obtainment of appointments and flow of care in the health services scenario, not requiring appointments or information by telephone or waiting for more than 60 minutes.[26]

When it is recognized that socioeconomic factors influence access to treatment, it is perceived that, although free, the absence of benefits, or support, can obstruct the continuity of treatment. These individuals generally present physical weakness caused by the disease, resulting in decreased family income.[28]

Based on the results of the research, a study conducted in Paraná, resembles that found in the research with 59% that make use of motorized transport, as for the expense in this same research, 45.2% was always spent what differs from what was found.[29] However, the results of the study conducted in Belém, differ completely from what was obtained.[14]

The lack of medications during treatment was evaluated as satisfactory and evidenced as a potentiality of TB control health services. Thus, it is assumed that government-funded treatment regimens distributed free of charge are one of the factors that favor patient compliance.[13] A study conducted in Rio de Janeiro, regarding drug supply, reached a consensus on the research.[26]

Another worrying factor is the absence of home visits, which does not constitute a practice in these services, configuring loss of opportunity for guidance on treatment, monitoring of clinical evolution and contact examinations, since this activity allows to know the socioeconomic context in which they are inserted, besides identifying their

difficulties.[6,30] Based on the results of the study in Ribeirão Preto, in which 82% of the patients reported receiving home visits by professionals, it is antagonistic to the one found in the research.[22]

The present study had as limitation the use of secondary data, which makes it susceptible to failure to fill out and/or incomplete information in the notification forms and in the patient registration book and treatment follow-up of TB cases, which directly interferes in the disclosure of information that portrays in a real way the profile and management of the cases in the municipality, besides the fact of evaluating the health services, because each one has its uniqueness and is in the planning process.

CONCLUSION

In short, the epidemiological profile of the majority of the population is male, with incomplete primary education, living in their own homes and with two to three people per household. The access to TB treatment in the BHU services of the municipality of Caxias-MA was analyzed, emphasizing that the TB treatment services are centralized and the geographic indicators of access were considered satisfactory by the participants of the survey, the treatment was performed in the nearest unit, medical consultation within 24 hours, medication, less than 60 minutes to consult.

However, ensuring access is not sufficient for treatment success, reflecting the need for new strategies aimed at promoting population health. Thus, research is essential to build indicators and update data on the subject, so that they can assist professionals, especially at BHU, in their work with TB patients, because they can provide planned and quality assistance, as well as improve the guarantee of access to patients in the municipality of Caxias-Ma.

The study is expected to contribute relevant information for proper disease control and decision-making by managers and health professionals, contributing to ending TB as a serious public health problem.

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