Original Article

Interaction between patient and health care professionals in the management of tuberculosis*

Vínculo doente-profissional de saúde na atenção a pacientes com tuberculose

Vínculo persona enferma-profesional de salud en la atención a pacientes con tuberculosis

Maria Eugênia Firmino Brunello[1], Danuza Firmino Cerqueira[2], Ione Carvalho Pinto[3],Ricardo Alexandre Arcênio[4], Roxana Isabel Cardozo Gonzales[5], Tereza Cristina Scatena Villa[6], Lúcia Marina Scatena[7]

ABSTRACT

Objective: To evaluate the effectiveness of health care services in the management of tuberculosis in Ribeirão Preto, SP, during the year of 2007 in promoting interaction between patient and health care professionals. **Methods**: An adapted questionnaire that contains 10 indicators of interaction was used. The sample consisted of 100 patients with tuberculosis. **Results**: More than 60% of patients reported they engaged in conversations about other issues besides tuberculosis with their health care professionals. The majority of the sample (90%) reported they have enough time to clarify their questions about the treatment of tuberculosis. More than 50% of patients from each outpatient clinic reported to contact their physician when they were in need for food or transportation voucher. **Conclusion**: The structure of the delivery of health care by specialized health care teams from the "Programs for Tuberculosis Control" had good indicators of interaction between patient and health care professionals, which may contribute to the identification of patients' needs and searching for resources to address those needs.
Keywords: Tuberculosis; Primary health care; Health services evaluation

RESUMO

Objetivo: Avaliar o desempenho dos serviços de saúde no controle da tuberculose para o estabelecimento do vínculo entre doente e profissional de saúde no Município de Ribeirão Preto - SP, em 2007. **Métodos:** Foi aplicado um questionário a 100 doentes, elaborado para atenção básica e adaptado para atenção à tuberculose, que contém dez indicadores de avaliação de vinculo. **Resultados:** Mais de 60% dos doentes de cada unidade referiam que conversam sobre outros assuntos além da tuberculose com os profissionais da saúde, mais de 90% relataram ter tempo suficiente para esclarecer dúvidas sobre o tratamento. Mais de 50% dos doentes de cada ambulatório relataram procurar o médico quando necessitam de cestas básicas ou vale-transporte. **Conclusão:** A organização da assistência à tuberculose realizada por equipes especializadas nos Programas de Controle da Tuberculose apresentou indicadores favoráveis ao vínculo, o que pode contribuir para a identificação das necessidades e busca de soluções.
Descritores: Tuberculose; Atenção primária à saúde; Avaliação dos serviços de saúde

RESUMEN

Objetivo: Evaluar el desempeño de los servicios de salud en el control de la tuberculosis para el establecimiento del vínculo entre persona enferma y profesional de salud en el Municipio de Ribeirão Preto - SP, en el 2007. **Métodos:** Fue aplicado un cuestionario a 100 enfermos, elaborado para la atención básica y adaptado para la atención a la tuberculosis, que contiene diez indicadores de evaluación de vínculo. **Resultados:** Más del 60% de los enfermos de cada unidad refirieron que conversan sobre otros asuntos, además de la tuberculosis, con los profesionales de salud, más del 90% relataron tener tiempo suficiente para aclarar dudas sobre el tratamiento. Más del 50% de los enfermos de cada consultorio relataron que buscan al médico cuando necesitan de canastas básicas o vales de transporte. **Conclusión:** La organización de la asistencia a la tuberculosis realizada por equipos especializados en los Programas de Control de la Tuberculosis presentó indicadores favorables al vínculo, lo que puede contribuir en la identificación de las necesidades y búsqueda de soluciones.
Descriptores: Tuberculosis; Atención primaria de salud; Evaluación de servicios de salud

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[1] Public Health Nursing post-graduation student at Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo - USP – Ribeirão Preto (SP), Brazil.

[2] Public Health Nursing Master at Hospital Estadual de Ribeirão Preto – HERP – Ribeirao Preto (SP) – Brazil.

[3] Doctor, Professor at the Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo - USP– Ribeirao Preto (SP), Brazil.

[4] Doctor, Assistant Professor at Universidade Federal do Mato Grosso – UFMT - Cuiabá (MT), Brazil.

[5] Doctor, Professor at Universidade Federal de Pelotas – Rio Grande do Sul, Brazil.

[6] Titular Professor, Coordinator of the operational research area at the Brazilian TB Research Network, Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo - USP – Ribeirao Preto (SP), Brazil.

[7] Doctor, Professor at the Public Health Nursing Post Graduation Course, Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo - USP– Ribeirao Preto (SP), Brazil.

Corresponding Author: **Tereza Cristina Scatena Villa**
Av. Bandeirantes, 3900 - Monte Alegre - Ribeirão Preto - SP
Cep: 14040-902. E-mail: tite@eerp.usp.br

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INTRODUÇÃO

Tuberculosis (TB) remains one of the greatest challenges for public health policies, considering that drugs, generally, are effective against the bacillus, however, the constant and necessary incitation concern the healthcare service organizational members and the human behavior itself[1].

Some studies have pointed out similar cure rates both for the supervised and the self-administered treatments[2], an epidemiologic situation that may be justified by the quality of interaction between users and healthcare professionals[3].

The organization logic for several TB healthcare services follows strict rules set forth by international epidemiologic methods, which establish disease and patient control[4] and do not respect the user autonomy during the healthcare process, bringing communication and relationship problems for the ones involved in the disease treatment[5-6].

Studies demonstrate several behaviors that denote impersonal relationships and patients' submission attitudes when undergoing the TB treatment such as: demands for habits and customs changes, having a fixed residence, medication and special diets imposition, constant attendance to the healthcare service institution without considering the health-disease determining and conditioning factors[7-10].

In some prioritized municipalities in the state of São Paulo, a study showed that, besides the medication supervision, the user and healthcare professional relationship improvement should be considered a priority during the healthcare process. The authors also deem as successful only treatments through which the bond is created[11]. A number of researches have been demonstrating essential aspects regarding the bond establishment, such as: the complaint, subjectivity, and social communication valorization, besides a listening-based and empathic relationship with the user[12-17].

The bond assumes the existence of a regular source of care, and its usage along time requires the establishment of strong interpersonal bonds that reflect the mutual cooperation among the community people and the healthcare professionals[18], comprising, therefore, one of the main structural elements for TB control and care, once it pervades responsibility, completeness, humanization, among others[11].

The municipality studied, in the year of 2006, presented a lung TB incidence ratio of 37.82 per 100 thousand inhabitants, a 40% case detection rate and a 68.5%[19] cure rate, considering the investigation of the healthcare professionals and patients interaction, mediated by the bond, extremely important so as to offer subsidies to public policies and healthcare professionals to definitely overcome a biomedical model which is not sufficient to control a social disease that weakens and kills an expressive share of the Brazilian population, although it had its relevance recognized some decades ago.

The object of the present study was to assess the healthcare services performance with regards to the tuberculosis control and the establishment of a bond between the healthcare professional and the patient, in Ribeirão Preto municipality – SP, 2007.

METHODS

This is an exploratory assessment research, with a quantitative section, that focuses on the relationship between the professionals and the TB patients and considers it one of the Primary Healthcare structural components[18].

The study population was composed by 133 patients that were under treatment when the data collection took place (June and July, 2007). One hundred TB patients were interviewed and selected according to the following inclusion criteria: to be more than 18 years old, live in Ribeirao Preto, to be out of the prisional system, to be under treatment for more than a month, and to agree and sign the Informed Consent Term. The patients were distributed as follows among the TB Control Programs of the Reference Facilities A, B, C, and D, respectively: 39, 24, 22, and 15.

It is important to highlight the fact that the facilities where TB Control Programs are developed will be represented by letters so as to preserve the healthcare service institutions identity.

In order to assess the bond dimension, several indicators were built based on the instruments for quick assessment of the Healthcare Primary service organization and performance, which were formulated and validated[20] in Brazil, and adapted to assess the TB healthcare[21].

A questionnaire was elaborated for the TB patient to answer, with questions and scores that ranged from zero to five, on the Healthcare Primary service bond dimension.

Each question allowed the subject to choose the frequency with which specific situations occurred (whether it was applicable or not to the individual situation). They contained a Likert scale which had six answer possibilities: "ignored", "never", "hardly ever", "sometimes", "almost always", and "always". The social-demographic data were also considered when sampling the TB patients under treatment.

The TB care in Ribeirao Preto is organized by five healthcare districts with specialized staffs for the TB Control Program, comprised, in general, of one doctor, a nurse, and two nursing assistants, who also develop

actions in other programs of the healthcare unit. The directly observed therapy (DOT) is offered in all five facilities for all TB patients, with an option of having the same modality of treatment in the healthcare unit or the patient's residence. It is necessary to highlight the fact that the patients treated by the TB Control Program of Facility E did not participate in the study because, when the data were collected, the local team was going through reformulations and was taking care of patients from the prisional system at that moment, and the rest of the patients were distributed among the other facilities.

Indicators built for the team and patient bond study

- Professionals' concern regarding other health problems of patients;
- Professionals' comprehension regarding other health problems of patients;
- Clarification of Patients' doubts by the healthcare professionals who treat TB;
- Healthcare professionals' availability to listen to patients;
- Patients' complaints recording by the healthcare professionals;
- Professional as a reference for the patient in case of any need;
- Patients' opinion regarding the healthcare staff.

Procedures

Such patients' survey was performed based on the following sources: compulsory notification file, the "black book" (a book where each ambulatory case is registered), and information on the healthcare professional who performs the DOT. The interviews scheduling happened through telephone contacts or through the healthcare service professionals themselves. The location and time the questionnaire would be applied were chosen by the patient, and included weekends and evenings. The healthcare service staff contribution was essential in order to locate and contact patients. Some interviews occurred in difficult geographic and social access regions.

Data analysis

The Software *Statistica* 7.0, from *Statsoft* was used for the data analysis. Frequency tables were elaborated for each indicator, in order to express the frequencies related to each answer provided by the patients (never/ hardly ever/sometimes/always/almost always).

Research ethical aspects

To comply with CONEP Resolution n.º 196/96, the study subjects anonymity was guaranteed, and the Informed Consent Term was signed by each interviewee. The research project was approved by the Ethics

Table 1 – Social-demographic characteristics of the patients interviewed, according to the reference facilities, Ribeirao Preto (2007)

Characteristics	Reference facilities / Tuberculosis Control Program				
	C (n=22) %	A (n=39) %	B (n=24) %	D (n=15) %	Total (n=100) %
Sex					
Feminine	36.4	35.9			31
Masculine	63.6	64.1			69
Education					
No schooling	4	1	2	0	7
Incomplete Basic Education	12	24	14	11	61
Completed Basic Education	1	5	2	2	10
Incomplete High School	0	3	2	0	5
Completed High School	3	4	4	1	12
Incomplete Superior Education	1	0	0	1	2
Completed Superior Education	1	2	0	0	3
Residence					
Of your own	14	29	10	9	62
Rented	5	8	7	2	22
Loaned	2	2	4	3	11
Shelter	1	0	3	1	5
Residence Type					
Masonry	21	38	24	13	96
Wooden	0	1	0	2	3
Recycling Material	1	0	0	0	1

Committee for researches of Ribeirao Preto Nursing School, in 2007.

RESULTS

The Table 1 outlines the social-demographic profile of each reference facility interviewed patients.

The Table 2 shows the patients' distribution according to the treatment modality to which they go through in the reference facilities.

Table 2 – Tuberculosis patients according to the type of treatment in the reference facilities, Ribeirao Preto (2007).

	Reference facilities/ Tuberculosis Control Program			
	C (n=22) %	A (n=39) %	B (n=24) %	D (n=15) %
Treatment Type				
Supervised	100.0	71.8	72.0	86.6
Self- administered	0	28.2	28.0	13.4
Total	**100.0**	**100.0**	**100.0**	**100.0**

The Table 3 shows the interviewed patients' distribution according to the frequency with which they talk to the healthcare professional about other problems, besides TB.

Table 3 – Tuberculosis patients according to the frequency conversations with healthcare professionals about other problems take place in reference facilities, Ribeirao Preto (2007).

	Reference facilities/ Tuberculosis Control Program			
	C (n=22) %	A (n=39) %	B (n=24) %	D (n=15) %
Frequency				
Always/ Almost Always	68.2	64.1	83.3	60.0
Sometimes	18.2	7.7	4.2	26.7
Never/ Hardly Ever	13.6	28.2	12.5	13.3
Total	**100.0**	**100.0**	**100.0**	**100.0**

The Table 4 shows the interviewed patients' distribution according to the frequency with which they search for doctors, nurses, or nursing assistants due to different problems.

Among the interviewees, 99% stated that they are always treated by the same professional during the medical appointments and also address doubts with the same professional. The patients answered that they felt professionals understood them, and answered to their questions and doubts in a clear way (96%).

All interviewees answered that the healthcare professional that treated them took notes of their complaints for the records.

When they were asked whether the healthcare professionals offered enough time for TB doubts clarification, all patients interviewed in the facilities C and D answered "always". In the facilities A and B, 92.3% and 91.7%, respectively, answered "always".

Most of the patients answered that they always received information and explanations on the medicines for TB in the different facilities, C (95.5%), A (94.9%), B, (87.5%) and D (86.7%). The patients stated that they always received orientation regarding other medicines ingestion, not just about the ones taken for TB, in the facilities: A (82%), B (79.2%), C (86.4%) and D (93.3%).

The concept attributed by the patients to their respective healthcare service (TB Control Programs) in the reference facilities is demonstrated in table 5.

Table 5 – Patients' perception on the care received from the Tuberculosis Control Program team in reference facilities, Ribeirao Preto (2007)

	Reference facilities/ Tuberculosis Control Program			
	C (n=22) %	A (n=39) %	B (n=24) %	D (n=15) %
Concept				
Very Good	81.8	69.2	66.6	80.0
Good	18.2	28.2	29.2	13.3
Regular	0	2.6	4.2	6.7
Total	**100.0**	**100.0**	**100.0**	**100.0**

Table 4 – Tuberculosis patients according to the frequency with which they search for professionals due to different problems in reference facilities, Ribeirao Preto (2007)

	Reference facilities /Tuberculosis Control Program											
	C (n=22) %			A (n=39) %			B (n=24) %			D (n=15) %		
	D	N	NA	D	N	NA	D	N	NA	D	N	NA
Frequency												
Always/ Almost Always	54.5	22.7	40.9	89.7	0	20.5	95.8	8.3	16.7	53.3	33.3	73.3
Sometimes	9.1	13.6	9.1	0	2.6	2.6	4.2	0	0	20.0	20.0	6.7
Never/ Hardly Ever	36.4	63.7	50.0	10.3	97.4	76.9	0	91.7	83.3	26.7	46.7	20.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Subtitles: D= doctor; NA= nursing assistant; N= nurse

DISCUSSION

The data obtained regarding the interviewed patients' characteristics are according to the TB afflicted population profile in Brazil, which is in its majority composed of males (93%), with incomplete basic education, 74% of the cases[22]. Such profile patients are the ones who most easily abandon the treatment, which predisposes society to the occurrence of multidrug-resistant TB cases[23]. Regarding residence conditions, 62% of the subjects owned their houses, which contrasts with the literature, once patients, due to the low income and extreme poverty, tend to concentrate in slums or irregular domiciles in the majority of cases[8,24].

It was also possible to verify high coverage levels for the DOT, in compliance with the World Health Organization recommendations, close to 100%[25]. It is worth highlighting that this treatment modality has improved the epidemiologic indicators in developing countries[25], dramatically increasing cure percentages and decreasing abandonment levels, although it is recognized that the therapeutic success is more related to the professional-patient interaction quality[1].

Therefore, it is valid to state that TB control is beyond the medicines ingestion supervision, or Supervised Treatment, because it includes the bonding process between patients and the healthcare staff. Such relationship is extremely important for the compliance to the treatment, once the subject is the healthcare procedure protagonist, with considerable autonomy in the decision making processes[11].

Results showed that TB Control Program healthcare teams from the municipality studied established a horizontal relationship with regards to patient-healthcare professional interaction, thus demonstrating that most of the patients, from the 4 facilities, is always questioned about and receives explanations on the tuberculostatics and other medication, besides having their doubts clarified in a satisfactory way. Therefore, providing clear and correct information on TB treatment medication is part of the bond creation between professionals and patients, which is an important aspect to strengthen the relationship in a therapeutic process[26].

In relation to the time offered to the patients for TB doubts clarification, the results showed that facilities C and D, which achieved the best performance rates, have a smaller number of patients under treatment, corresponding to half the quantity facilities A and B were treating, and all four facilities had the same number of professionals working for the TB program, which may be a favorable factor for such services performance with regards to bonding. It is important to reinforce that TB is a social-based disease, thus establishing a communication channel where the patient can express all his anguish and trouble[6] is a valuable action, and the team, using a holistic approach, should focus not only on the disease, but also on the social subject presented.

Still concerning communication, an essential element that comes from the bond, it was verified that the healthcare team in facility A did not approach themes other than TB, according to 28.2% of the interviewees. Such result may be possibly related to the same percentage of patients under self-administered treatment in the facility, due to the fact these patients do not have a closer relationship with the healthcare professionals that treat them and the professionals that supervise treatments at domiciles and units, where, many times, social problems are discussed *in loco*, exceeding the biological aspects of the disease and reaching the social determining and conditioning factors of the health-disease process[27].

The communication restriction to TB biomedical aspects in the studied facilities, mainly in A, contributes significantly to an impersonal relationship, with no dialogue, listening, responsibility, or subjectivity, which makes it even harder for a bond to be created, and for treatment to happen.

Therefore, healthcare practices should be thought over for the TB context, considering that the current model is not enough and it is considerably harmful to the healthcare system, generating, thus, a situation that favors the multidrug-resistant cases, whose treatment costs exceed up to one thousand times the conventional treatment costs[28-29].

In a study developed in Nepal, the authors identified a higher risk for adhesion when patients had poor communication with healthcare professionals, although the authors had limited communication to the disease biological aspects, such as side effects, treatment and its duration[14].

It was also verified that in all TB Control Programs analyzed, the patients complaints are wrote down in his/her record, which may be considered as a quality factor for healthcare services, at first, demonstrating a TB record systematization, and valorization of what is being reported by the client. Nevertheless, if deeper analyzed, the records are only based on the clinic dimension, missing the holistic concept, the social context, which may be harmful for the patient-healthcare professional relationship quality.

The bonding relationship is based on comprehension, it consists of supporting and offering to listen to the patients, tell facts and provoke the other side, making them speak[30]. Such aspects strongly contribute to the TB care continuity, taking into account all the factors that bring obstacles to the therapeutic continuity, biologically, psychologically, or socially speaking. These obstacles may come up during the long treatment path,

and will be more easily exposed by the patient when socially accepted by the team.

There are evidences of client/patient satisfaction in the literature on the continuity (longitudinal aspect) of the healthcare service, however, there is low satisfaction regarding the quality of the services[31].

The findings also revealed that in all TB Control Programs studied, the patient is generally treated by the same professional, which makes it easier for a bond to be established, due to the constant and long-term contact.

In a study, a clinic experience demonstrates that the biomedical model is not only harmful to the healthcare service user, but also to the healthcare teams, which become distant from their socially gained knowledge. The author reports his experience in an attempt to work with an insufficient model considering the population social needs for a humanized healthcare practice[32].

One of the essential aspects towards the bonding process concerns the healthcare professional figure, an individual who the patient calls upon whenever there is a problem, whether it has a biological or non-biological origin. According to the results, 95.8% of the interviewees in facility B and 89.7% in facility A said that they report to the doctor, while 8.3% stated that they look for a nurse in facility B. There were no nurse demand registers in faciliy A.

Regarding the doctor's figure, some studies confirm the patients "preference" for such professional instead of others, like the assistant nurse or the nurse, for this is closely linked to the knowledge hegemony issue, and to the fact that in several occasions, the doctor is the most required professionals[33-34].

The doctor's knowledge centralized healthcare is still a constant reality, which generates huge lines in several locations, and healthcare public services collapse and exhaustion[33]. Therefore, the TB care, which is connected to the healthcare system social and organizational aspects, follows the logic reflected in the interviewed subjects.

The possible explanations for the patients' preference for doctors may be the nurses' involvement with administrative activities, sometimes even more than with nursing activities, leaving their competences aside for nursing assistants or doctors[35]. Such attitude results in distance and more difficulties to create and establish patient-healthcare professional bonds[26].

In spite of the elements pointed out as being obstacles for the bonding, like the communication limited to biomedical aspects, as observed in facility A, most of the TB Control program patients assessed the healthcare service as good or very good. Therefore, it is possible to suppose that when the subject uses other scenarios as references, such as long lines, violence and healthcare staffs lack of attention, they end up considering the facilities organizational performance satisfactory, with guaranteed access to the treatment for the ones who need it. One of the aspects to be also considered in the present study, and that may indirectly impact on the results, was some patients' option to be interviewed in the service unit, although the location choice was up to the interviewees. This event may have, somehow, inhibited some of them when they were asked about the program healthcare team service quality.

Nevertheless, it is necessary to overcome the healthcare services existing model flaws so that the staffs are able to incorporate new technologies to the work processes, and patients have access to the available resources in the public system. The assumption that bonds are essential and structural elements for the healthcare practices and TB care has to be considered, *for this is the only possible way to truly meet the real subjects' demands and needs when working at the healthcare field*[33].

CONCLUSION

TB care organization, building specialized staffs (TB Control Programs) in health districts in Ribeirao Preto municipality, presented a favorable performance for the patient-healthcare professional bond development, benefiting the disease treatment compliance. However, the bond presented better results in programs treating a smaller number of patients, which shows this aspect makes communication and the patient-healthcare professional relationship easier. It is also necessary for the healthcare professionals to be available to listen to the patients in order to identify needs and search for solutions.

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