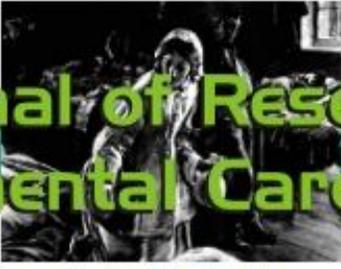


Federal University of Rio de Janeiro State



# Journal of Research Fundamental Care Online

ISSN 2175-5361  
DOI: 10.9789/2175-5361

## RESEARCH

### Estratégia saúde da família e a construção do vínculo no controle da tuberculose pulmonar na Rocinha-RJ

Health strategy and bonding construction in the control of pulmonary tuberculosis in Rocinha-RJ  
Estrategia salud de la familia y construcción de relación en el control de la tuberculosis pulmonar en la Rocinha-RJ

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#### ABSTRACT

**Objective:** to analyze the establishment of bonding between health professionals from the Family Health Strategy team of Rocinha/RJ with users suffering from tuberculosis (TB). **Method:** this was a descriptive study with a quantitative approach. A questionnaire was applied to 145 health care professionals containing questions related to bonding. **Results:** 95.15% of interviewees responded that patients are always assisted by the same professional in the team each time they demand health assistance. All interviewees stated that they search for users when they miss appointments or do not attend medicine scheduled intakes, or do not pick up medication in the correct date. **Conclusion:** through the obtained data and only based on the interviewed professionals, we can infer that there are situations that may characterize bonding. **Descriptors:** Bonding, Tuberculosis, Rocinha.

#### RESUMO

**Objetivo:** analisar o estabelecimento de vínculo dos profissionais de saúde da equipe da Estratégia Saúde da Família da Rocinha/RJ com os usuários portadores de tuberculose (TB). **Método:** estudo descritivo, com abordagem quantitativa. Foi aplicado um questionário a 145 profissionais de saúde contendo perguntas relacionadas ao vínculo. **Resultados:** 95,15% dos entrevistados responderam que os doentes são sempre atendidos pelo mesmo profissional da equipe cada vez que demandam ao serviço de saúde. Todos os entrevistados responderam realizar busca do usuário quando este falta a consulta, não comparece para a ingestão ou busca da medicação na data correta. **Conclusão:** através dos dados obtidos e tão somente pela visão dos profissionais entrevistados, pode-se inferir que há situações que podem ser caracterizadas como vínculo. **Descritores:** Vínculo, Tuberculose, Rocinha.

#### RESUMEN

**Objetivo:** analizar el establecimiento de vínculo de los profesionales sanitarios del equipo de Estrategia de Salud de la Familia de la Rocinha / RJ, con usuarios portadores de tuberculosis (TB). **Método:** se realizó un estudio descriptivo, con abordaje cuantitativo. Se aplicó un cuestionario a 145 profesionales de la salud con preguntas relacionadas con el vínculo. **Resultados:** 95.15% de los encuestados respondieron que los pacientes siempre son atendidos por el mismo equipo de profesionales cada vez que necesitan del servicio de salud. Todos los encuestados respondieron realizar la búsqueda del usuario cuando este falta a la consulta o no comparece para la ingestión o a buscar la medicación en la fecha correcta. **Conclusión:** a través de los datos obtenidos y sólo por la visión de los profesionales entrevistados se puede deducir que hay situaciones que puedan caracterizar el vínculo. **Descriptor:** Vínculo, Tuberculosis, Rocinha.

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## INTRODUCTION

**T**uberculosis (TB) is an infectious and contagious disease caused by an microorganism named *Mycobacterium tuberculosis*, also known as Koch's bacillus (BK), that is spread through the air by droplets containing bacilli expelled by the patient with pulmonary tuberculosis when coughing, sneezing, or loud speaking, which when inhaled by a healthy person can cause tuberculosis infection and risk of developing the disease.<sup>1</sup>

The spread of tuberculosis is linked to living conditions in the population. It proliferates like all infectious diseases in areas of high human concentration with precarious urban infrastructure services such as sanitation and housing where there are extreme hunger and poverty. Therefore, its incidence is higher in the peripheries of large cities.<sup>1</sup>

Brazil is one of the 22 countries prioritized by the World Health Organization (WHO) that comprise 80% of the global Tuberculosis burden. The country is currently in the 17<sup>th</sup> position in number of cases and 111<sup>th</sup> regarding incidence coefficient.<sup>2</sup>

The cure coefficient rate is 73%, while the rate advocated by WHO is 85%, and the abandonment rate is around 10%. Brazil presented a case detection rate of 88%.<sup>3</sup>

One of the main problems related to TB is the high rate of treatment abandonment. Users who are satisfied with the services offered tend to adhere to the prescribed therapy.<sup>4</sup> Relating to TB, adherence is critical because one of the main problems presented by the National Tuberculosis Control Plan refers to the lack of adherence of users with the offered TB therapy.<sup>5</sup>

Non-adherence leads to decrease in closure of cases through cure and increase in the number of cases with drug resistance. This framework imposes challenges to professionals and health managers to seek strategies that can overcome these difficulties increasing treatment adherence.<sup>6</sup>

Bonding has numerous concepts and may vary according to different authors. It also has a connection with other concepts in public health such as humanization, co-responsibility, embracing, integrality, and co-management.

According to the Ministry of Health, bonding consists in building relationships of affectivity and security between user and health worker allowing for deepening the process of co-responsibility for health in addition to carrying a therapeutic potential.<sup>6</sup>

Some authors consider that treatment success will only be achieved if bonding is established.<sup>7</sup> From there, the role of the health professional arises where strategies must be created within their practices to ensure the user's safety in relation to the cure of TB.

Therefore, the objective of the study is:

- To analyze the establishment of bondings between health professionals from the Family Health Strategy of Rocinha/RJ and users suffering from tuberculosis.

## METHOD

This was a descriptive study with a quantitative approach. Descriptive studies are those that describe a phenomenon or situation related to a study within a space-time.<sup>8</sup> The quantitative research tends to emphasize the deductive reasoning, rules of logic, and measurable attributes in the human experience.<sup>9</sup>

The study was carried out in the community of Rocinha, located in the South Zone of Rio de Janeiro, in the AP 2.1, after agreement from the coordination of the Family Health Strategy.

Data were collected in the following units: Dr. Albert Sabin Municipal Health Center, Maria do Socorro Silva e Souza Family Clinic and Rinaldo De Lamare Family Clinic, between June and October of 2013, after conducting an interview with health professionals who act in the control of TB in these services, namely: doctor, nurse, nursing assistant/technician, and community health agent (ACS).

The sample calculation detailed below took into consideration the total number of professionals in these categories working in the service of the Family Health Strategy and was conducted before data collection.

The professionals who work in the Family Health Strategy according to a survey performed by the national calculation of health establishment (CNES) are:

- CMS Dr. Albert Sabin - 6 nurses, 6 doctors, 6 nursing technicians, and 36 ACS totaling 54 professionals.
- C. F. Maria do Socorro Silva e Souza - 11 nurses, 18 doctors, 11 nursing technicians, and 66 ACS totaling 106 professionals.
- C. F. Rinaldo de Lamare - 8 nurses, 11 doctors, 8 nursing technicians, and 48 ACS totaling 75 professionals.

The total number of professionals working in these units is 225 including: 25 nurses, 35 doctors, 25 nursing technicians, and 150 ACS.

Taking the total population of health professionals working in the ESF in the community of Rocinha as a reference and considering the sampling error of 0.05; 95% confidence interval, and P (population proportion) of 50% since we do not know the proportion of true parameters that will be estimated in this population and;

Considering:

$$n_0 = \frac{p \cdot (1-p) \cdot Z^2}{e^2} = 384.16$$

The minimum calculated sample size was 145 professionals being: 93 ACS, 22 doctors, 15 nurses, and 15 nursing technicians.

Formula for sample correction:

$$n = \frac{n_0}{1 + (n_0 / N)} = 384,16 \ / \ [1 + (384,16 \ / \ 235)] = 145$$

(number of professionals to be interviewed)

Calculation of the percentage of professionals according to the category:

$$\text{Nurse: } 25/235 \times 100 = 10\%$$

$$\text{Doctor: } 35/235 \times 100 = 14\%$$

$$\text{Nursing technician: } 25/235 \times 100 = 10\%$$

$$\text{ACS: } 150/235 \times 100 = 63\%$$

Calculation of the number of health professionals to be interviewed:

$$\text{Nurse: } 10\% \times 145 = 15$$

$$\text{Doctor: } 14\% \times 145 = 22$$

$$\text{Nursing technician: } 10\% \times 145 = 15$$

$$\text{ACS: } 63\% \times 145 = 93$$

Total = 145 professionals to be interviewed

Part of a structured instrument with closed questions was used for data collection. The variables that compose the instrument were built by the GEOTB/EERP/USP group based on studies and documents from the Ministry of Health that contain the actions of greatest relevance for the treatment of TB in the Basic Attention services to achieve the goals of the National Tuberculosis Control Program (PNCT).

The data were analyzed through exploratory analysis techniques of study variables using absolute and relative frequency distribution. A database was elaborated using Microsoft Access where all interviews were typed, and answers were organized in tables.

Each interviewee only participated in the study after acceptance and signature of the Volunteer and Informed Term of Consent involving guaranteed participant anonymity.

This study is linked to the project entitled "DOTS strategy in the treatment of tuberculosis: performance of the primary care service in the community of Rocinha, Rio de Janeiro." This project was presented to the Committee of Ethics in Research from the Municipal Health and Civil Defense Secretary of the city of Rio de Janeiro and approved under Protocol 134 /11, 0042.0.313.314-11 CAAE, in compliance to Resolution CNS 466/2012 - guidelines and regulatory norms for research involving humans.

## RESULTS AND DISCUSSION

The following tables were elaborated from the interviews with professionals from the ESF units in the community of Rocinha:

Table 1 - Distribution of interviewees by health unit

Family Clinic	Frequency	%
C. F. Maria do Socorro Silva e Souza	50	34.48%
C. F. Rinaldo of Kayla Marie	52	35.86%
C. M. S. Dr. Albert Sabin	43	29.66%
General	145	100%

Table 1 presents the amount of professionals interviewed in three units in Rocinha. It can be observed that the C.F. Rinaldo de Lamare showed the highest number of interviewed professionals 52 (35.86%), followed by C.F. Maria do Socorro Silva e Souza 50 (34.48), and C.M.S. Dr. Albert Sabin 43 (29.66%) totaling 145 interviewees. The criterion of availability of professionals to be approached was used.

Table 2 - Distribution of professionals responsible for actions in TB control

Function	Frequency	%
Nurse	19	13.10%
Nursing technician	27	18.62%
Doctor	23	15.86%
Community Health Agent	76	52.42%
General	145	100%

Table 2 presents the amount of professionals interviewed separated by professional category. A total of 19 (13.10%) nurses, 27 (18.62) nursing technicians, 23 (15.86%) doctors, and 76 (52.42) ACS were interviewed. It was not possible to interview 93 (63%) ACS according to the sample calculation due to unavailability and because we did not find these professionals in the units, whether because they were conducting home visits or on vacation. With that, we decided to interview more professionals from other categories to achieve the total number of 145 professionals established in the calculation.

Table 3 - Time of performance of all professionals in the basic attention

Unit	Average	Standard deviation
C. F. Maria do Socorro Silva e Souza	37	28
C. F. Rinaldo de Lamare	35	32
C. M. S. Dr. Albert Sabin	50	62
General	40	42

Table 3 shows the time of practice in months in the basic attention of all interviewees. The professionals at the C. M. S. Dr. Albert Sabin show nearly twice the time at work compared to professionals from other units.

Table 4 - Time of practice of health professionals per unit

Unit	Average	Standard deviation
C. F. Maria do Socorro Silva e Souza	27	14
C. F. Rinaldo de Lamare	23	15
C. M. S. Dr. Albert Sabin	36	57
General	28	33

Table 4 shows the activity time in months of professionals interviewed in their respective units. The professionals from the C. M. S. Dr. Albert Sabin are in activity in the unit, on average longer than professionals from the C. F. Rinaldo de Lamare and C.F. Maria do Socorro Silva e Souza.

The following tables were prepared according to bonding.

Table 5 - To listen to other health problems and patient's needs

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	100%	0%
C. M. S. Dr. Albert Sabin	100%	0%
General	100%	0%

Table 5 shows that all (100%) interviewees reported listening to patients' other health problems and needs in addition to TB

Table 6 - Service performed by the same professional

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	94.2%	5.8%
C. M. S. Dr. Albert Sabin	90.7%	9.3%
General	95.17%	4.83%

Table 6 shows that the total number of interviewees (95.17%) responded that patients are always assisted by the same professional every time they demand health service.

Table 7 - Information about TB passed to the patient

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	99.62%	0.38%
C. M. S. Dr. Albert Sabin	100%	0%
General	99.86%	0.14%

Table 7 shows that information about TB is passed to patients by nearly all professionals. Out of those interviewed, (99.86%) claimed offering all information on TB needed for treatment. The information passed include: form of disease transmission, time

for taking medications, adverse reactions to medications, needs for examining contacts, and importance of treatment adherence.

Table 8 - Discussion with the patient about the form of treatment

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	99.62%	0.38%
C. M. S. Dr. Albert Sabin	99.61%	0.39%
General	99.89%	0.11%

Table 8 shows the discussion with the patient about their follow-up during treatment. Among the interviewees (99.89%) responded that it is accomplished. This discussion includes: implementation of directly observed treatment (TDO), place of TDO performance, day of the week for TDO performance, schedule for TDO performance, schedule for medical control consultations, and delivery of medication.

Table 9 - TDO offering sites

Unit	Domicile	Health unit	Work
C. F. Maria do Socorro Silva e Souza	100%	100%	20%
C. F. Rinaldo de Lamare	100%	100%	15.38%
C. M. S. Dr. Albert Sabin	100%	100%	9.30%
General	100%	100%	15%

Table 9 shows the sites where TDO is offered. All interviewees (100%) responded that it is offered at home and in the health unit, however, only (15%) stated conducting TDO at work. However, in these cases, the patient only receives TDO at work because it is in the area assigned to the clinic as described by the interviewees.

Table 10 - Home visits to priority TB cases

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	100%	0%
C. M. S. Dr. Albert Sabin	95.34%	4.66%
General	98.62%	1.38%

Table 10 shows that home visits (VD) are offered to priority TB cases. A total of 98.62% of interviewees reported that these visits are carried out by the team when the TB patient is also HIV positive or alcoholic and has chemical dependency.

Table 11 - Educational actions geared to the community

Unit	Routinely	Campaign season
C. F. Maria do Socorro Silva e Souza	74%	94%
C. F. Rinaldo de Lamare	61.53%	96.15%
C. M. S. Dr. Albert Sabin	67.44%	100%
General	67.59%	96.55%

Table 11 shows that, according to the interviewees, the educative actions in the communities are routinely conducted (67.59%), however, (96.55%) of the interviewees reported that these are carried out during campaign seasons.

Table 12 - Search for the patient when failed to attend medical /nursing appointments

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	100%	0%
C. M. S. Dr. Albert Sabin	100%	0%
General	100%	0%

Table 12 shows that the user search is performed when a medical /nursing consultation had not been attended; all (100%) stated that it was performed.

Table 13 - Search for the patient when failed to attend medication intake /did not pick up medication in the correct date

Unit	Yes	No
C. F. Maria do Socorro Silva e Souza	100%	0%
C. F. Rinaldo de Lamare	100%	0%
C. M. S. Dr. Albert Sabin	100%	0%
General	100%	0%

Table 13 shows that all interviewees (100%) responded that the users search is also performed when they failed to attend intake medication or failed to pick up the medication in the correct date.

After the presentation and analysis of the data related to bonding, it was observed that out of the 145 interviewees, all (100%) reported listening to the patients' other health problems and needs in addition to the disease. The listening allows confiding and creates a space for the user to reflect on his suffering. Listening is part of the communication process and is a social practice that produces effects that resonate in the everyday life of people.<sup>10</sup> Thus, the listening will allow the professional to recognize other problems that are not always related to the disease.

With respect to being assisted by the same professional, (95.15%) of interviewees responded that patients are always assisted by the same professional every time they demand any health service. This further strengthens the construction of bonding because the user feels more secure in relation to the professional. For the professionals who denied, it was reported that users who were/are not assisted by same professional were absent.

The results showed that nearly all interviewees (99.86%) claimed offering all information on TB needed for treatment. The correct information passed to the carrier of tuberculosis is essential for the treatment because through them the patient recognizes the importance of treatment continuity mainly with regard to side effects caused by drugs because when not correctly informed, the abandonment rate increases. Adverse reactions contribute to change in treatment, abandonment, increased costs, treatment failure, and even death in the most severe conditions.<sup>11</sup>

In relation to the discussion with the TB patient about monitoring during treatment (99.89%) responded that it is accomplished. The choice of TDO modality to be adopted must be decided jointly between the health team and patient considering the reality and existing health care structure.<sup>2</sup>

Still with regard to TDO, all interviewees (100%) responded that it is offered at home and in the health facility and only (15%) stated conducting TDO in workplaces. The Ministry of Health recommends that for the implementation of the directly observed treatment, the following supervision modalities should be considered: at home, when the observation is performed in the patient's home or in a place requested by the patient; at the health unit, when the observation is performed in the ESF units, Basic Health Units (UBS), assistance service for HIV/aids or hospitals; in prisons, when the observation is performed in the prison system; and shared, when the patient receives medical consultation at a health unit, and does the TDO in another health facility, closer to his home or work.<sup>2</sup>

As for those home visits to priority TB cases, the data show that for (98.62%) of the interviewees it is performed by the team. According to Brazil, the objectives of the visits are: check possible obstacles to adhesion, seek solutions to overcome them, reinforce guidelines, and confirm the address and schedule examination of contacts. Thus, the health

service can promote adherence to treatment and strengthen bonding with the patient and family.<sup>2</sup>

The promotion of educational actions in the communities were reported in (67.59%) of responses and (96.55%) of interviewees reported that these are carried out during campaign seasons. Since the percentage found in relation to educational actions geared to the community was small, their promotion on a much larger scale is necessary, after all, educational actions allow the subject to reflect on his reality. According to the Technical Manual for the control of Tuberculosis, carrying out educational actions at the health unit towards their clientele as well as community are attributions of the basic health units.<sup>(2)</sup>

All interviewees (100%) responded searching for the user when he/she misses a consultation. The Ministry of Health recommends that if patients and/or their contacts do not attend the health unit, the home visit must be conducted.<sup>2</sup>

Finally, with regard to the search, all interviewees (100%) responded that the user's search is performed when he/she does not attend medicine intake or pursuit medication in the correct date. This quest was very stressed by the interviewed professionals because everyone, especially the community health agents, stated that many users do not attend medication intake appointments or even do not receive the professional who goes to his home to deliver it, completely abandoning the treatment confusing physical improvement with the cure of the disease. With that, several attempts are made, always emphasizing the importance of sustaining full treatment.

## CONCLUSION

Through the obtained data and only based on the perspective of the interviewed professionals, we can infer that there are situations that may characterize bonding. However, there is a limitation in the study due to the absence of information about the user's perception, and thus, we cannot conclude whether the bonding is actually established. Therefore, additional research may arise also involving the user's perception.

### Acknowledgements

- To Professor Fabiana Barbosa Assumpção de Souza, my advisor, for her patience, encouragement, and dedication.

- To the graduate student Fernanda Cortines Carvalho for the encouragement you gave me during the completion of this work.
- To my undergraduate fellows, Juliana Siqueira Lima and Mariana Ramos Guimarães for helping with the application of the instrument for data collection.
- To Professor Dr Luciane de Souza Velasque for the collaboration with your statistical knowledge.
- To my colleague Wellington Thadeu de Alcantara Azevedo for having helped us in the construction of the statistical data.
- Last but not least, to my boyfriend Raphael Pessoa de Oliveira, thank you for all your patience and strength given to me during the completion of this work.

This study is based on a research subproject part of a parent project "DOTS STRATEGY IN THE TREATMENT OF TUBERCULOSIS: PERFORMANCE OF THE PRIMARY CARE IN THE COMMUNITY OF ROCINHA, RIO DE JANEIRO, BRAZIL and is the result of the collaboration of the Inter-institutional Research Group in Epidemiological and Operational Area in Tuberculosis (GEOTB), which acts in an articulated manner with the Brazilian Tuberculosis Research Network (REDE-TB). The parent project and subproject integrate a Multicenter Project in partnership with the Nursing School from the University of São Paulo at Ribeirão Preto, funded by CNPq, whose title is "DOTs strategy in the treatment of Tuberculosis: performance of the basic attention in municipalities located in the South, Southeast, and Northeastern Brazil".

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Received on: 03/09/2014  
Required for review: No  
Approved on: 29/10/2014  
Published on: 01/04/2015

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