RESEARCH | PESQUISA

Performance of the tuberculosis control program in the family health strategy

Desempenho do programa de controle da tuberculose na estratégia saúde da família

El desempeño del programa de control de tuberculosis en la estrategia de salud familiar

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ABSTRACT

Objective: to assess the performance of the Tuberculosis Control Program in the Family Health Strategy. **Method:** a descriptive study conducted in the city of Rio de Janeiro. The inclusion criteria of the units were being exclusively family health and having at least 01 year of operation; as for professionals, having followed up at least one patient with tuberculosis. A structured form was used to assess the performance of the Program. Data were collected between March and September 2016. Analysis of the variables was performed through descriptive statistics. **Results:** 124 physicians and nurses from 13 units were interviewed. Of the 36 variables, *little knowledge of professionals about social policies*, *low participation of civil society*, *lack of integration with other sectors* and *difficulty in communicating with specialists* negatively stood out. **Conclusions and implications for practice:** despite the increase in Family Health Strategy coverage and decentralization of tuberculosis control in the region, there is a need for qualification of professionals, development of partnerships and social mobilization, improvement in coordination with specialists and improvement of reception for effective tuberculosis control.

Keywords: Tuberculosis; Family Health Strategy; Research on Health Services; Evaluation of Health Programs and Projects.

RESUMO

Objetivo: avaliar o desempenho do Programa de Controle da Tuberculose na Estratégia Saúde da Família. **Método:** estudo descritivo, realizado no município do Rio de Janeiro. Os critérios de inclusão das unidades foram ser exclusivamente de saúde da família e ter, no mínimo, 01 ano de funcionamento; quanto aos profissionais, ter acompanhado ao menos um paciente com tuberculose. Foi utilizado um formulário estruturado para avaliar o desempenho do Programa. A coleta de dados ocorreu entre março a setembro de 2016. A análise das variáveis foi realizada através da estatística descritiva. **Resultados:** 124 médicos e enfermeiros de 13 unidades foram entrevistados. Das 36 variáveis, quatro se destacaram negativamente: *pouco conhecimento dos profissionais sobre as políticas sociais*; *baixa participação da sociedade civil*; *falta de integração com outros setores*; *dificuldade de comunicação com os especialistas*. **Conclusões e implicações para a prática:** apesar do aumento na cobertura da Estratégia Saúde da Família e descentralização do controle da tuberculose na região, há a necessidade de qualificação dos profissionais, de desenvolvimento de parcerias e de mobilização social, de melhoria na articulação com os especialistas e melhoria do acolhimento para o efetivo controle da tuberculose.

Palavras-chave: Tuberculose; Estratégia Saúde da Família; Pesquisa sobre Serviços de Saúde; Avaliação de Programas e Projetos de Saúde.

RESUMEN

Objetivo: evaluar el desempeño del Programa de Control de la Tuberculosis en la estrategia de salud familiar. **Método:** estudio descriptivo, realizado en la ciudad de Río de Janeiro. Los criterios de inclusión para las unidades fueron ser exclusivamente para la salud familiar y tener al menos 01 año de operación; en cuanto a los profesionales, haber acompañado al menos a un paciente con tuberculosis. Se utilizó una forma estructurada para evaluar el desempeño del Programa. La recolección de datos se realizó entre marzo y septiembre de 2016. El análisis de las variables se realizó mediante estadística descriptiva. **Resultados:** se entrevistó a 124 médicos y enfermeras de 13 unidades. De las 36 variables, cuatro se destacaron negativamente: *poco conocimiento de los profesionales sobre políticas sociales*; *baja participación de la sociedad civil*; *falta de integración con otros sectores*; *dificultad para comunicarse con especialistas*. **Conclusiones e implicaciones para la práctica:** a pesar del aumento en la cobertura de la Estrategia de Salud Familiar y la descentralización del control de la tuberculosis en la región, existe la necesidad de la calificación de profesionales, para el desarrollo de alianzas y movilización social, para mejorar la articulación con el especialistas y mejor recepción para el control efectivo de la tuberculosis.

Palabras chave: Tuberculosis; Estrategia de Salud Familiar; Investigación sobre Servicios de salud; Evaluación de Programas y Proyectos de Salud.

INTRODUCTION

The Family Health Program (FHP), which was born in 1994, initiated the reorganization of public health in Brazil and care practaice through full-time and continuous monitoring of the population based on prevention, promotion, recovery, and rehabilitation. It was renamed the Family Health Strategy (FHS) in 2006 and underwent some changes due to its complexities, reaffirming the Brazilian Health System (SUS – *Sistema Único de Saúde*) principles: universalization, decentralization, integrality, and community participation.[1,2]

FHS expansion in Brazil varied greatly, in relation to the characteristics of each region.[3] In 2008, the city of Rio de Janeiro began to reorganize the Health Care Network (*Rede de Atenção à Saúde*) by implementing teams and introducing family health units. Initially, FHS coverage was 3.7% and after 2016, it reached 57%.[1,3]

Despite the increase in coverage and evidence about the great impact on the health of the population, especially in poorer places, the rapid expansion presented organizational, infrastructure and human resources difficulties. Recent changes in public policy have also interfered with financing directly affecting services.[2]

FHS brought changes in Brazilian public health, including the idea of horizontalizing, i.e. decentralizing tuberculosis (TB) control to FHS due to its degree of capillarity, fundamental for early diagnosis and appropriate treatment of TB. FHS became the protagonist in TB care, and it had the chance to identify patients early and increase compliance with treatment through bonding. Despite this, decentralization has brought challenges for the local Tuberculosis Control Program (TBCP), because even with advances there are still difficulties for effective TB control.[4]

The Brazilian National Tuberculosis Control Program (PNCT - *Programa Nacional de Controle da Tuberculose*) created the Brazilian National Plan to End Tuberculosis (*Plano Nacional pelo Fim da Tuberculose*). This plan has three pillars: integrated and patient-centered prevention and care; bold policies and support systems and intensification of research and innovation. In addition to these pillars, there are objectives that direct essential points for TB control such as diagnosis, treatment, TB-HIV collaborative activities, prevention, civil society participation, intersectoral articulation, resource assurance, quality of systems, partnership scans, and innovation.[4]

Rio de Janeiro stands out for maintaining high incidence and mortality rates of TB in the Brazilian setting. Also, the alarming rates in the city of Rio de Janeiro[4,5] are still maintained, even with the changes in TB care actions and services through increased FHS coverage.

Some studies[6-10] on TBCP performance have indicated common characteristics that negatively interfere in TB indicators, which are lack of integration between coordination and family health units; limited participation of specialists; fragmentation in care; deficit in care routines; unpreparedness in the management of guidelines/protocols; lack of human resources; turnover of professionals; disqualification of teams; accumulation of activities; little community participation in TB control; limitation of information systems.

The aforementioned structural, organizational, and planning weaknesses minimize TB care capacity and, therefore, should be investigated and monitored periodically, considering the local characteristics so that necessary adjustments can be made in the best possible way.[6-10]

Given this setting of FHS consolidation, decentralization of TB control and maintenance of the epidemiological situation of TB, it is important to identify the essential points of TBCP, actions, and health services. This study is necessary because TB remain with high incidence and mortality rates, remaining a priority theme in public health in Brazil and worldwide.

Thus, the objective was to assess the performance of TCP in the FHS of the city of Rio de Janeiro.

METHOD

This descriptive study was conducted at FHUs of the Programmatic Area 3.3 of the city of Rio de Janeiro. The research comes from a multicenter study of the epidemiological and operational area of the Brazilian Tuberculosis Research Network (REDE-TB - *Rede Brasileira de Pesquisa em Tuberculose*) entitled "*Tuberculose: análise dos pontos de estrangulamento da atenção para controle da doença em municípios das regiões sul, sudeste e nordeste do Brasil*".

The study was carried out in Rio de Janeiro, which has an estimated population of 6,718,903 inhabitants. Resolution 431, of April 14, 1993, of the Municipal Health Department, created the Health Planning Area or Programmatic Area (PA) to enable regionalization of health actions and services. There are 10 PA's that add 160 neighborhoods: Center (1), South Zone (2.1), North Zone (2.2, 3.1, 3.2 and 3.3), and West Zone (4.0, 5.1, 5.2 and 5.3).[11]

PA 3.3 is characterized by having large shopping, industrial, residential centers, and numerous areas of irregular occupation. It has the largest population of all PA's, with half of the residents living in poor communities and presenting high rates of TB, being chosen among the other PA's. It is estimated that there are more than 1,200,000 inhabitants by undersizing the numerous irregular occupations in the site. This area borders three other cities: Duke of Caxias, Nilópolis, and São João de Meriti.

In 2016, the territory had 27 Basic Health Units (UBS): 01 type C (Municipal Health Center), 08 type B (Municipal Center and Family Health Strategy Teams), and 18 type A (Family Health Units).

The inclusion criteria to choose the health units were being a type A unit and having at least 01 (one) year of operation. The exclusion criterion of the units was being within a community with intense armed conflict and with very limited access to public transport. Altogether, 16 (sixteen) health units were identified according to the inclusion/exclusion criteria. Three units that were in places of armed conflict with very limited access were excluded. Sample consisted of 13 family clinics.

As for health professionals, the inclusion criterion was to follow the treatment of at least one patient with TB at the health

unit where the interview was conducted; and exclusion criteria were being on vacation or on any kind of leave.

The study population consisted of FHS nurses and physicians, totaling 208 professionals (93 physicians, 77 nurses, 28 residents of medicine and nursing, 10 physicians from *Programa Mais Médicos* (More Doctors Program)). However, 49 professionals did not attend TB cases; 21 professionals refused to participate in the study; and 14 were on leave. Thus, 124 professionals participated in the study (68 physicians and 56 nurses).

The data collection instrument was a structured form applied to health professionals to assess TB care. The questionnaire is a proposal by MacCooll Institute for Health Care Innovation, based on the Chronic Care Model (CCM).[12]

The instrument was adapted and validated in Brazil into "*avaliação pelos profissionais da capacidade institucional local para desenvolver o modelo de atenção às condições crônicas*"[13]. It was adapted for TB care by the Epidemiological and Operational Studies Group of REDE-TB.

The instrument is divided into 7 dimensions: 1) organization of TB care; 2) articulation with the community; 3) supported self-management; 4) decision support; 5) design of the service delivery system; 6) clinical information system; 7) integration of the components of the care model for people with TB. Each dimension has 4 to 6 variables numbered from 1 to 36.

The variables were classified into 4 levels: limited capacity, basic capacity, reasonable capacity, and optimal capacity. The first represents a more limited institutional capacity for TB care and the latter, the best institutional capacity for TB.

Dimensions were assessed at *well-assessed* (when most variables had optimal and reasonable levels) and *poorly assessed* (when most variables had limited and basic levels).

Data collection occurred between March and September 2016 in 13 units where 124 professionals were interviewed. The units were visited by the researcher according to the opening hours for the interview of physicians and nurses through previous appointments.

Data were organized in the Statistical Package for the Social Sciences (SPSS 2.1) to be stored and analysed. Descriptive statistics were used from simple frequency to classify these variables, with *limited, basic, reasonable and optimal* capacity, and for dimensions they were *well-assessed* and *poorly assessed*. When there wasn't predominance of responses performance was considered inconclusive.

The Research Ethics Committees of the *Escola de Enfermagem Anna Nery* (EEAN/UFRJ) - *Escola São Francisco de Assis* (CEPEEAN/HESFA) and the Municipal Health Department approved the study, under Opinion 1,472,431/2016 and Protocol 1442624/2016.

RESULTS

Table 1 presents the profile of the PA 3.3 professionals in Rio de Janeiro. The majority (70.2%) was female. Concerning age, 54.8% of the professionals were young, aged between 24 and 34 years old. In relation to TB training, 54.8% of the professionals performed training. Most of the professionals

Table 1 - Profile of nurses and physicians in the 13 Family Health Units of PA 3.3. Rio de Janeiro, RJ, 2016 (n=124)

Variables	Function		
	Physician n (%)	Nurse n (%)	Total n (%)
Sex			
Female	37 (54.4)	50 (89.3)	87 (70.2)
Male	31 (45.6)	6 (10.7)	37 (29.8)
Total	68 (100.0)	56 (100.0)	124 (100.0)
Age group			
24 to 34 years old	34 (50.0)	34 (60.7)	68 (54.8)
35 to 45 years old	19 (27.9)	12 (21.4)	31 (25.0)
46 to 65 years old	15 (22.1)	10 (17.9)	25 (20.2)
Total	68 (100.0)	56 (100.0)	124 (100.0)
TB training			
Yes	31 (45.6)	37 (66.1)	68 (54.8)
No	37 (54.4)	19 (33.9)	56 (45.2)
Total	68 (100.0)	56 (100.0)	124 (100.0)
Specialization/Residency in family health			
Yes	28 (41.2)	32 (57.1)	60 (48.4)
No	40 (58.8)	24 (42.9)	64 (51.6)
Total	68 (100.0)	56 (100.0)	124 (100.0)

interviewed did not have specialization or residency in family health (51.6%).

Table 2 presents the results of the 7 dimensions in relation to TBCP. Most dimensions were well assessed with optimal and reasonable capabilities such as Dimension 1 (TB Care Organization), Dimension 3 (Supported Self-Management), Dimension 4 (Decision Support), Dimension 5 (Design of the Service Delivery System), Dimension 6 (Clinical Information System), and Dimension 7 (Integration of Care Model Components). Dimension 2 (Articulation with the Community) was considered inconclusive, because it had each variable at a different level.

Most variables had optimal and reasonable capabilities. The variables with limited capacity were "benefits and incentives" (variable 6) and "articulation with non-governmental organizations" (NGOs) (variable 7). The variables with basic capacity were "community partnerships" (variable 8) and "involvements with specialists" (variable 16).

Table 2 - Performance dimensions of the Tuberculosis Control Program of the 13 Family Health Units of PA 3.3. Rio de Janeiro, RJ, 2016 (n=124)

Variables	Limited capacity n (/%)	Basic capacity n (/%)	Reasonable capacity n (/%)	Optimal capacity n (/%)
Dimension 1 - TB Care Organization				
1- Manager's interest	1 (0.8)	2 (1.6)	48 (38.7)	**73 (58.9)**
2- Goals agreed and registered by the unit	0	10 (8.1)	56 (45.2)	**58 (46.8)**
3 - Strategies for improving TB care	0	3 (2.4)	51 (41.1)	**70 (56.5)**
4- Primary Care to be a TB treatment site	0	6 (4.8)	54 (43.5)	**64 (51.6)**
5 - Manager's performance	0	8 (6.5)	**60 (48.4)**	56 (45.2)
6 -Benefits and incentives	**85 (68.5)**	12 (9.7)	19 (15.3)	8 (6.5)
Dimension 2 - Articulation with the Community				
7 - Articulation of the unit with NGOs	**43 (34.7)**	37 (29.8)	22 (17.7)	22(17.7)
8- Community partnerships	38 (30.6)	**48 (38.7)**	30 (24.2)	8 (6.5)
9- Local health council	18 (14.5)	35 (28.2)	**46 (37.1)**	25 (20.2)
10- Community Health Agent (CHA)	0	4 (3.2)	50 (40.3)	**70 (56.5)**
Dimension 3 - Supported Self-Management				
11- Registration of professionals	0	45 (36.3)	25 (20.2)	**54 (43.5)**
12- Support for patients	5 (4)	18 (14.5)	22 (17.7)	**79 (63.7)**
13- Embracement	0	7 (5.6)	**69 (55.6)**	48 (38.7)
14- Behavior change interventions	1 (0.8)	14 (11.3)	25 (20.2)	**84 (67.7)**
Dimension 4 - Decision Support				
15- Guidelines manual	1 (0.8)	1 (0.8)	24 (19.4)	**98 (79)**
16- Involvement of specialists	41 (33.1)	**45 (36.3)**	21 (16.9)	17 (13.7)
17 - Professional training	29 (23.4)	32 (25.8)	**37 (29.8)**	26 (21)
18- Information to people	3 (2.4)	11 (8.9)	43 (34.7)	**67 (54)**
Dimension 5 - Design of the Service Delivery System				
19 - Teamwork	0	13 (10.5)	36 (29.0)	**75 (60.5)**
20- Reference professional	5 (4.0)	18 (14.5)	20 (16.1)	**81 (65.3)**
21- Scheduling system	0	3 (2.4)	25 (20.2)	**96 (77.4)**
22- TB monitoring	2 (1.6)	34 (27.4)	29 (23.4)	**59 (47.6)**
23- Planned care for TB	1 (0.8)	12 (9.7)	**59 (47.6)**	52 (41.9)
24- Reference and counter-reference	8 (6.5)	13 (10.5)	35 (28.2)	**68 (54.8)**
Dimension 6 - Clinical Information System				

Table 2 - Continued...

Variables	Limited capacity n (/%)	Basic capacity n (/%)	Reasonable capacity n (/%)	Optimal capacity n (/%)
25- Clinical record	0	2 (1.6)	31 (25.0)	**91 (73.4)**
26 - Register of TB patients	5 (4.0)	12 (9.7)	44 (35.5)	**63 (50.8)**
27- Warning and alert system	19 (15.3)	18 (14.5)	**48 (38.7)**	39 (31.5)
28- Feedback	11 (8.9)	18 (14.5)	**57 (46.0)**	38 (30.6)
29- Information about TB patients	10 (8.1)	**41 (33.1)**	32 (25.8)	**41 (33.1)**
30- Care plan	0	10 (8.1)	35 (28.2)	**79 (63.7)**
Dimension 7 - Integration of Care Model Components				
31- Information for TB patients	5 (4.0)	25 (20.2)	**53 (42.7)**	41 (33.1)
32- Medical Records	0	23 (18.5)	**51 (41.1)**	50 (40.3)
33- Community programs	29 (23.4)	**62 (50.0)**	22 (17.7)	11 (8.9)
34- Care planning	0	18 (14.5)	**58 (46.8)**	48 (38.7)
35 - Monitoring	5 (4.0)	12 (9.7)	43 (34.7)	**64 (51.6)**
36- Recommendations from the Ministry of Health	5 (4.0)	19 (15.3)	30 (24.2)	**70 (56.5)**

DISCUSSION

The profile of FHS professionals is: women, young, in an economically active age group, which was also found in the literature.[14-17]

Concerning training, most of the nurses participated, which shows greater interest in the theme or more availability. Lack or high turnover of physicians in the units increases the demands of care and limits the participation of professionals for training. It is noticed that few physicians have specialized in family health, which may reflect the little emphasis given on the theme during academic education.[14,18]

In relation to TBCP performance, most of the variables were assessed optimally or reasonably, a result also found in a study conducted in the state of Paraíba.[7] Dimension 1 was well assessed. Variable 1 "manager's interest", with optimal capacity, however, the variable 5 "manager's performance" was reasonable, demonstrating discrepancy between what would be idealized for what is performed in management practice. This difficulty was also seen in another study[6] where managers did not agree actions to control TB.

The manager's work is paramount in FHS for the work of the health team, encouraging professionals to perform best. Management is one of care and support elements for TB control, and it must be qualified and competent to facilitate the continuity of care.[8]

Attention is drawn to the variable with the worst performance "benefits and incentives for TB patients" (variable 6). Sick pay can be acquired for those who contribute to the Brazilian National Institute of Social Security (INSS - *Instituto Nacional de Seguridade Social*), Continuous Service Delivery Benefit (BPC – *Benefício de Prestação Continuada*) of the Organic Law on Social Assistance (OLSA). However, for those who do not contribute to INSS, they can acquire transportation assistance and family grant.

Incentives would be strategies created by health professionals to encourage compliance with treatment such as snack to perform supervised dose, provision of market baskets, or any activities that encourage the participation of patients and family members.

One of the World Health Organization (WHO) and the Brazilian National Plan to End Tuberculosis recommendations is that TB patients be offered social protection strategies in order to help reduce social vulnerability.[4,5,19-21] These social policies contribute to TB control because, indirectly, they improve access to health services, increase compliance with treatment and reduce the risk of therapeutic failure, especially with poorer patients.[5,19-22]

TB is related to poverty,[22] and treatment generates direct (transportation, medication, examinations or consultations) and indirect (loss of income) costs. These costs can be reduced through benefits or incentives.[20] Professionals oriented about the benefits and incentives can guide the patients and their family. However, for this care to happen, the professional should know about social protection policies.[17]

In most of the units assessed, there was no Family Health Support Center (NASF – *Núcleo de Apoio à Saúde da Família*), which provides social service professionals, which would help in strengthening social protection, i.e., an important non-used tool to control the disease. Social protection measures are not guided by TBCP, a result also found in another study.[6] Orlani (2019) identified incentives on the part of professionals: offer of transportation allowance, market baskets, and snacks, however, he noticed limitations of professionals for guidance on social protection policies.[23]

Dimension 2 was inconclusive. There is no monitoring and collection of organized civil society in TBCP. In a study on management capacity in TB control,[6] the assessed sites also showed an unfavorable performance on community partnerships.

Local Councils should monitor health actions in the territory and participate in the schedules of the units. Although the variable "local health council" (variable 9) has reasonable capacity, there is no good articulation between these pairs in the territories. Fragmented articulation limits TB control, minimizing bonds and co-responsibility with the population[5,7].

It is noteworthy that one of the objectives of the Brazilian National Plan is the coalition with civil society organizations and communities. The strategies in this sense are to establish an articulation between management and civil society, strengthen the participation of civil society in creating campaigns, planning, monitoring, and assessing actions to combat TB.[5]

However, the best variable was "Community Health Agent (CHA)" (variable 10). These professionals are the differential of FHS due to bond and active search in families and communities. CHA become the link between the community and FHS health services mainly because they are local residents belonging to the community,[4] favoring care of TB patients and increasing the chances of successful treatment.[19]

Despite this good performance, if the articulation with NGOs and community partnerships are weakened, the full performance of the CHA's is questioned, since they can limit themselves to acting in a superficial and unpoliticized way in the territories, which would not contribute to the social control of the disease within the TBCP.[6] There may also be little or no understanding on the part of the population and even of health professionals themselves about what is, or could be, community participation in TB care in the region.

Dimension 3 was well assessed, demonstrating that TBCP professionals develop a partnership and incentive relationship through dialogue, welcoming and interventions for behavior change, essential for TB patients. Co-responsibility throughout treatment is important so that patients/families feel safe.[7,20,24]

Dimension 4 perceives that professionals do not have adequate communication with secondary level specialists. The lack of support hinders the routines of TBCP's, also found in other studies.[6,24]

On the other hand, in Dimension 5, the variable "Reference and counter-reference" (variable 24) had optimal capacity. We can infer that at some point there are difficulties in communication or continuity of care between FHS professionals and specialists, since these variables had different results and are related to the secondary level of care through the support of pulmonologists for FHS teams. The exchange of information and integration with other services is the basis for professionals to feel safer for decision-making at FHS.[7,9,24,25]

To develop TB control actions, there is a reference professional (variable 20). In all units assessed, nurses place this position, also found in other studies[16,17]. Scheduling system (variable 21), TB monitoring (variable 22), and teamwork (variable 19) were favorable to the TBCP routines.

Dimension 6 performed well. TBCPs have adequate, computerized clinical information systems with electronic medical records. Although these variables are favorable for TBCP routines, issues related to the quality of the records were not investigated at this time. One of the recommendations of the Brazilian National Plan to end TB is that there is adequacy of records and information systems such as the Information System of Diseases and Notification (SINAN - *Sistema de Informação de Agravos e de Notificação*), the Information System of Special Tuberculosis Treatments (SITETB - *Sistema de Informação de Tratamentos Especiais da Tuberculose*), the Laboratory Environment Manager (LEM), among others, to meet the needs of surveillance and monitoring.[5]

Dimension 7 is a summary of the previous dimensions and again pointed out the fragility in the variable "community programs" (variable 33).

One possible limitation that needs to be pointed out was the lack of interviews with other members of the health team, such as CHA, nursing technicians and oral health professionals. At that moment, we chose to focus on higher-level professionals who attend and coordinate the TBCP, as well as monitor and interact with other local services to control the disease.

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

TBCP in general was well assessed. Organization of TB care, supported self-management, design of the service delivery system, and clinical information systems were favorable. However, the findings reveal some weaknesses without disqualifying the program.

Articulation with NGOs and benefits/incentives for TB patients had limited capacity. Low civil society participation and lack of integration with other local sectors weaken the use of community resources. Similarly, the limitation of TBCP professionals in offering social protection strategies or incentives to patients and families was one of the resources not used to control TB.

Other variables were not articulated by services and/or professionals, such as issues related to secondary level of care, in which specialists support FHS professionals for decision-making.

FHS is an important ally in the fight against TB. Despite the great increase in FHS coverage and decentralization of TB control in the region, there is a need for qualification of professionals, improvement in coordination with specialists, welcoming in a multidisciplinary and integrated way of TBCP, development of partnerships, and social mobilization.

The clipping made in PA 3.3 does not exhaust the possibilities of analyses and discussions on TB care in the city of Rio de Janeiro, on the contrary, the ideas for other investigations on the subject are amplified. Finally, it is necessary to highlight the recent crisis of the health sector in Rio de Janeiro, which directly affects the actions and services provided in TB control as well as in the health results already achieved over previous years.

AUTHORS' CONTRIBUTIONS

Design of the review study, acquisition, data analysis and interpretation of results, writing and critical review of the manuscript, approval of the final version of the article, responsibility for all aspects of the content and the integrity of the published article: Rute dos Santos Lafaiete de Barros.

Interpretation of results, writing and critical review of the manuscript, approval of the final version of the article, responsibility for all aspects of the content and the integrity of the published article: Maria Catarina Salvador da Mota, Ângela Mendes de Abreu, Tereza Cristina Scatena Villa.

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