

ORGANIZATION OF PRIMARY HEALTHCARE SERVICES FOR TUBERCULOSIS DIAGNOSIS AND TREATMENT

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ABSTRACT: The present study aimed to describe how Primary Care professionals, in the city of Natal, state of Rio Grande do Norte, perceive the organization of health care services for tuberculosis. Exploratory study, with a quantitative approach, carried out with 100 professionals of PHC, between November 2013 and January 2014. Data was collected with the use of a structured instrument. According to the results, 42% (n = 42) of the professionals affirmed that health unit managers play a key role in the planning for tuberculosis care; 43% (n = 43) reported that the agreed targets are periodically reviewed; 52% (n = 52) confirmed the existence of strategies to improve care services for tuberculosis; 56% (n = 56) mentioned the benefits and incentives offered to tuberculosis patients. It is concluded that the organizational capacity in primary care is related to governmental strategies aimed to ensure that health unit managers provide benefits and incentives to TB patients and that tuberculosis treatment is delivered at the primary care level.

DESCRIPTORS: Tuberculosis; Primary health care; Health services; Patient care.

ORGANIZAÇÃO DA ATENÇÃO PRIMÁRIA PARA DIAGNÓSTICO E TRATAMENTO DA TUBERCULOSE

RESUMO: Objetivou-se descrever a percepção dos profissionais da Atenção Primária, atuantes no município de Natal, acerca da organização da atenção à tuberculose. Trata-se de um estudo exploratório, de abordagem quantitativa, realizado com 100 profissionais da Atenção Primária, entre novembro de 2013 e janeiro de 2014. Utilizou-se para coleta de dados instrumento estruturado. Dos resultados obtidos, 42% (n=42) dos profissionais afirmaram que o gerente da unidade de saúde faz parte do planejamento em relação à tuberculose; 43% (n=43) reconheceram as metas pactuadas como revistas periodicamente; 52% (n=52) confirmaram a existência de estratégias para a melhoria da atenção à tuberculose; 56% (n=56) alegaram a oferta de benefícios e incentivos aos portadores de tuberculose. Conclui-se que a capacidade organizativa está ligada às estratégias governamentais, as quais podem induzir o interesse do gestor a garantir a oferta de benefícios e evidenciar a Atenção Primária como local para o tratamento e diagnóstico da tuberculose.

DESCRIPTORES: Tuberculose; Atenção primária à saúde; Serviços de saúde; Assistência ao paciente.

ORGANIZACIÓN DE LA ATENCIÓN PRIMARIA PARA DIAGNÓSTICO Y TRATAMIENTO DE LA TUBERCULOSIS

RESUMEN: La finalidad de este estudio fue describir la percepción acerca de la organización de la atención a la tuberculosis de los profesionales de la Atención Primaria que actúan en el municipio de Natal. Es un estudio exploratorio, de abordaje cuantitativo, realizado con 100 profesionales de la Atención Primaria, entre noviembre de 2013 y enero de 2014. Para obtener los datos, se utilizó instrumento estructurado. Como resultado, se verificó que 42% (n=42) de los profesionales afirmaron que el gerente de la unidad de salud hace parte del planeamiento acerca de la tuberculosis; 43% (n=43) reconocieron las metas acordadas como siendo revistas periodicamente; 52% (n=52) confirmaron la existencia de estrategias para mejorar el proceso de la atención a la tuberculosis; 56% (n=56) argumentaron que hay oferta de incentivos y beneficios a los portadores de tuberculosis. Se constata que la capacidad de organización está enlazada con las estrategias de gobierno, las cuales pueden inducir motivar al gestor a garantizar la oferta de beneficios y evidenciar la Atención Primaria como proceso para el tratamiento y diagnóstico de la tuberculosis.

DESCRIPTORES: Tuberculosis; Atención primaria a la salud; Servicios de salud; Asistencia al paciente.

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● INTRODUCTION

Tuberculosis (TB) is considered a global disease and a serious public health problem. In 2015, 6.1 million new cases of tuberculosis were reported to the World Health Organization (WHO). According to the new WHO classification 2016-2020, Brazil ranks 20th in the list of 30 countries with high TB burden and in 19th place among the 30 countries with high TB / HIV⁽¹⁾.

Controlling tuberculosis is a priority of the government, and the disease is contemplated in the programs developed by the Ministry of Health (MS), through actions targeted to the control, prevention and surveillance of the disease⁽²⁾.

Among the programs conducted, we stress the actions conducted by the National Tuberculosis Control Plan (PNCT), which are developed at the three governmental levels, though with greater emphasis on the municipal sphere, at the Primary Health Care (PHC) level⁽³⁾.

According to Brazil's Unified Health System (SUS), Primary Care services, emergency services and other health services⁽⁴⁾ are the points of entry to health services. The role of PHC is emphasized here, as it comprises the Family Health Strategy (ESF) teams, which develop active search for patients, notification of cases, treatment, monitoring and discharge after proven cure, as well as preventive health education actions⁽³⁾.

The incidence of TB is not only related to factors such as economic underdevelopment, or to other factors that contribute to vulnerability to this infectious disease. Problems related to infrastructure and management of health services also contribute to increase such rates⁽²⁾. The scope of PHC has been expanded with the creation of the SUS⁽⁵⁾ and the implementation of health pacts with targets and indicators assigned to the municipalities and states, which receive financial resources and are responsible to ensure the population's access to healthcare services⁽⁶⁾.

The organization of health services concerns the developments of the technical and social division of health work, which includes complex coordination processes from multiple professional practices or multiple professional care efforts⁽⁶⁾. It involves issues relating to registration, use of information to create dialogue spaces, establishment of user flows in the health service, regulation of the labor process and the co-responsibility of those involved⁽⁷⁾.

The motivations for this study were the experience in the TB research group and the interest aroused during a technical meeting about the organization of the TB care network in the city of Natal, in the state of Rio Grande do Norte.

This study is valuable for primary health teams as it identified the gaps in the organization of primary health care services, contributing to improve the care to TB patients.

Therefore, the present study aims to describe the views of health professionals on the organization of primary health care services for tuberculosis patients, in the city of Natal.

● METHODOLOGY

Exploratory, cross-sectional study with a quantitative approach that characterized the current status of TB in the city of Natal.

The population was composed of 384 professionals with previous experience in the monitoring of TB cases in primary health care. A random sample was taken, and the following parameters were considered: Sample error of 0.5; Confidence Interval of 95% and P (population ratio) of 50%. The sample was equivalent to 100 professionals (n = 100).

Five sanitary districts are responsible for the management and execution of health care actions in the city of Natal, namely - North I and II, South, East and West. The administrative area is delimited according to its area (territory) of responsibility⁽⁸⁾.

For the optimization of TB control and monitoring, the city of Natal is expected to monitor and

comply with the indicators and targets established by the PNCT. The goals are as follows: to detect at least 70% of new sputum smear-positive TB cases; adequately treat 100% of diagnosed TB cases and cure at least 85% of these cases; To maintain acceptable TB treatment dropout rates (5%); keep up-to-date and accurate records of TB cases and 100% of previously treated cases and provide anti-HIV testing for 100% of the adults with TB. Regarding the indicators, we stress BCG vaccination coverage rates of children under one year of age; number of symptomatic respiratory patients examined; percentage of cases of pulmonary TB who underwent smear bacilloscopy; smear positive pulmonary tuberculosis cases; percentage of PHC professionals trained in PNCT actions/activities; percentage of cure of TB cases after nine months; tuberculosis treatment dropout rate; percentage of deaths⁽⁹⁾.

Data was collected from November 2013 to January 2014. The instrument was administered by four professionals in each health unit, one representative of each of the following occupations: physician, nurse, nursing technician and community health agent. In case of rejection of any professional occupation, the instrument was applied by another health professional from the three other occupations, in order to reach the total number of four professionals per health unit.

The professionals who agreed to participate were informed on the research and the objectives of the study and signed the Free Informed Consent Form.

Participant selection was based on the following inclusion criteria: primary health care professionals who had previously monitored TB cases, and the following exclusion criteria: professionals who were not performing their activities during data collection, who had not monitored TB patients during the treatment and who did not agree to sign the Free Informed Consent Form.

The instrument used was a questionnaire based on a proposal for MacCool Institute for Health Care Innovation, Assessment of Chronic Illness Care (ACIC) to the "assessment of local institutional capacity to develop a model of care for chronic conditions" adapted by Villa and Ruffino⁽¹⁰⁾ for the assessment of actions targeted to the control of TB.

The instrument was divided into seven dimensions, and dimension I (Organization of Care for TB) was the focus of this study. Its components were: interest/concern of the health unit manager with TB; goals agreed upon and registered by the health unit (coverage of supervised treatment and request for sputum smear exams); strategies for improving TB care (provision of supervised treatment, flexibility of supervised treatment hours, educational activities and priority in care); strategies aimed to establish Primary Health care facilities as the most appropriate for the treatment of TB (easy appointments scheduling, availability of laboratory services, well-trained professionals in the Health Unit); incentive of the health unit manager (priority and incentives to efforts aimed to improve TB care) and benefits and incentives for TB patients (breakfast, milk, transportation vouchers and basic food basket).

The responses were divided into four levels (D, C, B, A), with D corresponding to the most unfavorable level, with scores ranging from 0 to 2; level C with scoring 3 to 5; level B, 6 to 8 (both levels B and C are intermediate) and level A indicating the most favorable scoring (9 to 11). The results were interpreted as follows: limited capacity to care for TB patients (scores 0 to 2), basic capacity to care for TB patients (scores 3 to 5), moderate capacity to care for TB patients (scores 6 to 8), and optimal capacity to care for TB patients (scores 9 to 11).

The project was submitted to the Research Ethics Committee of Universidade Federal do Rio Grande do Norte. It was approved under protocol number 456.332 and on 11/01/2013. The study observed the Guidelines and Regulations that govern research involving human subjects, set forth in Resolution No. 466 of December 12, 2012, of the National Council of Health⁽¹¹⁾.

The data was arranged, classified and coded based on the instrument variables. Data analysis was performed using the Statistical Package for Social Sciences (SPSS) version 22.0. Descriptive statistics was used, and data was presented in tables.

● RESULTS

Profile of health professionals

Of the professionals interviewed, 34% (n = 34) were nurses, 10% (n = 10) were doctors, 22% (n = 22) were nursing technicians and 34% (n = 34) were Community Health Agents (ACS).

Regarding the characterization of the health unit in which the professionals performed their activities during the interview, 80% (n = 80) of the professionals worked in the Family Health Unit (FHU), 18% (n = 18) in a Basic Health Unit (UBS) and two (2%) in a Mixed Unit. Regarding the length of time working in the health sector, seven (7%) have been working in the health unit for less than one year, 23% (n = 23) have been working from one to five years, 29% (n = 29) from six to ten years and 41% (n = 41) for more than ten years.

Regarding the length of time working in the current job/occupation, three (3%) professionals have been working in their current jobs for less than one year, four (4%) from one to five years, 14% (n = 14) from six to ten years and 79% (n = 79) for more than ten years.

Classification of TB care organization

Regarding the organization of TB care, which includes the management of programs of TB control, treatment coverage, benefits, incentives and strategies to improve care for patients with TB, 61% (n = 61) of the health units were classified as having a moderate capacity to care for TB patients, as shown in Table 1.

Table 1 - Classification of organization to TB care according to capacity. Natal, RN, Brazil, 2014

Organization of Care to Tuberculosis in the City of Natal		
Capacity	N	%
BASIC	14	14
MODERATE	61	61
OPTIMUM	25	25
TOTAL	100	100

Classification of the components of the dimension Organization of primary health care services for tuberculosis, according to capacity

Health professionals classified as optimal the capacity of the component related to the interest of the health unit manager, who participates in the planning of the unit, with 42% (N = 42).

The agreed and registered goals (coverage of supervised treatment and request for sputum smear exams) by the health unit for the control of TB in the area covered were classified as optimal by 43% (n = 43), and were periodically monitored and reviewed and incorporated into the planning of the unit.

The strategies to improve TB care (delivery of supervised treatment, flexibility of treatment hours, educational activities, priority of care and easy scheduling), which were classified as optimal by 52% (n = 52), were implemented and are used to prevent problems.

The benefits and incentives for TB patients (breakfast, milk, transportation voucher and basic food basket) are offered to promote greater adherence of patients with 56% (n = 56).

The capacity of the following two components was classified as moderate: strategies adopted to encourage the use of primary health care facilities for TB treatment, classified as moderate by 72% (n=72) of the respondents regarding (1) easy appointment scheduling, availability of laboratory services and training of the professionals of the health units, which are designed to improve care, promote greater access, and ensure adherence to treatment; and (2) the encouragement of efforts by the unit

manager (identification of TB patients in the community) to improve TB care, classified as moderate by 60% (n = 60) of the respondents, as shown in Table 2.

Table 2 - Classification of the components of the dimension Organization of TB care according to capacity. Natal, RN, Brazil, 2014

Components	Capacity LIMITED		Capacity BASIC		Capacity MODERATE		Capacity OPTIMUM		Capacity TOTAL	
	N	%	N	%	N	%	N	%	N	%
Interest of health unit manager	12	12	8	8	38	38	42	42	100	100
Agreed and Registered Goals	8	8	16	16	33	33	43	43	100	100
Strategies for improving TB* care	7	7	8	8	33	33	52	52	100	100
Strategies for encouraging use of PHC** facilities to treat TB*	3	3	4	4	72	72	21	21	100	100
Incentive of the health unit manager in TB* care	9	9	6	6	60	60	25	25	100	100
Benefits and incentives for TB* patients	2	2	11	11	31	31	56	56	100	100

TB* - Tuberculosis

PHC** - Primary Health Care

● DISCUSSION

In this study, data on the profile of health professionals regarding length of time working in the health service corroborated a study carried out in 2010, in Ceará-Mirim, RN, where most PHC professionals have been working for more than 10 years in the sector. With the experience gained over the years in their management of TB patients, these health professionals may contribute to positive changes in their work process ⁽¹²⁾.

The classification of organization of Primary Care services for TB patients, defined by most health professionals as moderate, may be related to the management of policies and control programs, e.g. in the activities of detection and active search of respiratory symptomatic patients. This organization can be more effective if all professionals in the health unit are well trained. Periodical professional training, can ensure satisfactory results regarding the planning of actions and care ⁽¹³⁾.

Analysis of the data obtained in the research emphasizes the role of the health unit manager at the municipal level. Most professionals interviewed reported the participation of the manager during the planning of TB-related actions along with the professionals.

The performance of the manager of the health unit goes beyond the organization of work and management of human resources. The development of high quality care by health professionals with regard to the planning of care for TB carrier presupposes autonomy and power of decision in the actions and services ⁽¹⁴⁾.

In this context, we stress the goals and indicators assessed as optimal by most respondents, such as the coverage of supervised treatment as a factor that attract the interest of health unit managers, and instruments for the implementation of actions targeted to TB control. In addition to the goals and indicators agreed, other resources for the assessment of the results can arouse the interest of local managers, as they ensure bonuses/resources to the municipality, depending on their performance. Also, local managers are accountable to their communities and to other governmental spheres for their decision making regarding these resources ⁽¹⁵⁾.

Among the resources, it is worth stressing the National Program for Access and Quality Improvement in Primary Care (PMAQ-PC) - which assesses the performance of the health unit and the quality of the

actions conducted; the quality component of the Variable Primary Care Wage (PAB Variable) - a variable financial resource depending on the performance obtained by PHC teams, as well as management report implemented by the Basic Operational Norms of Health (NOBs), which allow the control and monitoring of actions at the local level⁽¹⁶⁾.

Regarding the component that addresses the goals agreed by health units (coverage of supervised treatment and request for sputum smear exams) for the control of TB in the area (territory) covered, the health professionals reported that the goals periodical monitoring and review s were incorporated into the unit planning.

The targets and indicators established are part of the SUS planning process for the three spheres of government, and the targets are classified into specific (at the local level), and universal, when mandatory⁽¹⁷⁾.

Therefore, periodical reassessment of the indicators and of the focus of the actions is needed, to detect obstacles, propose solutions, schedules and new goals. Moreover, the municipalities should hold meetings, at least quarterly, to assess the activities implemented under their health care programs⁽¹⁸⁻¹⁹⁾.

The data obtained in the interviews is not consistent with the current status of TB care in the city where the study was conducted and with the recommendations of the Ministry of Health. Data from TB cases in the city of Natal, of 2012, indicate a poor performance of the units, with smear bacilloscopy available only to 44.6% of the patients with suspected tuberculosis, contrasting with the recommendations of availability of these tests in 100% of the cases⁽²⁰⁾.

This result should be analyzed with regard to the ability of health professionals to assess their services, as they are part of the process of delivery of these services. Continuous training of the teams is suggested to make them able to identify the recommendations of TB control programs and fill the gaps in the health system in which they are inserted.

As for the strategies for improving TB care, regarding the delivery of supervised treatment, treatment schedule flexibility, educational activities, priority of care and easy appointment scheduling, they exist and are used to prevent problems.

Weaknesses associated to the organization of health services can directly influence user satisfaction with these services and hence their interest in accessing and using these services⁽²⁰⁾.

According to a study that assessed the satisfaction of TB patients with health services in 2008 and 2009, in a city of São Paulo, some factors that affect the dynamics of life, such as the waiting time for control visits - and access of users to the health unit - availability of schedule or nonscheduled appointments, particularly related to adverse effects of drug treatment or worsening of symptoms - were reported by users as an indicator of customer satisfaction⁽²¹⁾. These data corroborate the results of the present study that considers the strategies adopted as major tools for the improvement of TB care in PHC.

As for the strategies aimed to encourage TB treatment by PHC services, regarding easy appointment scheduling, laboratory services, and training of the teams, they were implemented to improve care for TB patients, in order to promote greater access, commitment and adherence to treatment.

Although PHC is the point of first contact with health services, where less specialized care is provided⁽²²⁾, it should be preferably used in the treatment of new TB cases⁽¹⁹⁾, as PHC services comprise governmental programs and actions - such as the Family Health Strategy (ESF) and the program of community health agents (PACS), which promote active search and the identification of symptomatic respiratory patients⁽²³⁾.

Given that TB is an infectious disease, and early diagnosis is critical to its control⁽²³⁾, PHC services are the most recommended for patients with tuberculosis. According to the literature, delayed diagnosis is associated with patient delay in seeking treatment. On the other hand, the availability of active search and dissemination of information are strategies that facilitate early diagnosis of TB⁽²¹⁾. Thus, PHC are strategic for the diagnosis and treatment of TB.

A survey conducted in 2012, in the city of Natal, with patients with pulmonary TB showed that most

of the interviewees (56.7%) sought emergency services (hospitals and emergency care), while the remaining 43.3% preferred to seek elective services (health units and outpatient services) for assistance and diagnosis of the disease⁽²³⁾. This result corroborates the data from the present study regarding the classification of PHC services as of moderate capacity to provide TB treatment in the city.

The managers of health units encourage efforts to change TB care by encouraging the identification of TB patients in the community, as well as by giving priority to the improvement of TB care.

Satisfaction with work deserves consideration, since the degree of satisfaction of workers reflects directly in the way they cope with problems and make decisions⁽²⁴⁾.

The local manager must act as an interlocutor and mediator of the work process, in order to achieve the goals described during the planning of the activities. Thus, the training provided to health managers must be based on PHC strategies - especially the family health strategy - that facilitate the work process⁽²⁵⁾.

A study conducted in 2010, in São Paulo, with health care managers and specialists found that training in health sciences and expertise in the management of health services were the top rated items associated to the profile of health managers⁽²⁶⁾.

Benefits and incentives (breakfast, milk, transportation voucher and basic food basket) are provided to improve care for TB patients. They are probably offered as part of the PNCT, to ensure, among other benefits nutritional support or transportation⁽¹⁸⁾, in a scenario where there is high incidence of people with malnutrition and in vulnerable economic situations. Since these incentives tend to increase adherence to treatment, they are a valuable practice⁽²⁷⁾.

Data obtained in the interviews showed that the prevalent benefit is the basic food basket. A survey conducted in 2006 and 2010 in Natal, related to TB treatment dropout rates, obtained respectively 22.73% and 6.49%, showing a remarkable reduction of cases⁽²⁸⁾.

One major limitation of this study concerns the difference in the number of professionals per occupation, which does not allow inferring the population by occupation.

● CONCLUSION

The study shed light on how PHC services diagnose and treat TB, from the viewpoints of health professionals.

Although the components related to the health unit manager's interest, the goals agreed and registered by the health unit for the control of TB regarding area of coverage, the strategy for improving TB care and the benefits and incentives for TB patients were considered optimal, the encouragement of efforts to improve TB care by health unit managers was classified as moderate.

Therefore, health managers are supposed to use the plans and strategies implemented as tools to be monitored and analyzed, so that their efforts are perceived by the professionals that integrate the multidisciplinary health team, and contribute to change the scenario of TB in the city of Natal.

Continuing education of health professionals is suggested to raise their awareness of the importance of achieving the goals established, as well as of their role as mediators of the process of changes in TB care.

Further investigational studies are strongly recommended to identify and rethink the organization of PHC services for TB diagnosis and treatment, according to the views of health managers.

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