Health professionals' opinion about services for tuberculosis control

Opinião dos profissionais de saúde sobre os serviços de controle da tuberculose

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Keywords
Tuberculosis/epidemiology; Health services evaluation; Primary care nursing; Public health nursing; Nursing evaluation research

Descritores
Tuberculose/epidemiologia; Avaliação de serviços de saúde; Enfermagem de atenção primária; Enfermagem de saúde pública; Pesquisa em avaliação de enfermagem

Submitted
July 26, 2014
Accepted
August 20, 2014

Abstract

Objective: To analyze, based on the perspective of health professionals, the performance of services for tuberculosis control in relation to focus on family and community guidance.
Methods: This cross-sectional study included 134 primary care health professionals. For each variable a mean score was determined, and the results were then submitted to analysis of variance.
Results: The dimension of focus on family had a satisfactory score, and only the variable "giving a sputum test container for contacts" was classified as fair. The dimension "community guidance" was classified as unsatisfactory; however, the dimensions "performance of educational actions" and "looking for respiratory symptoms in the community" were scored as fair.
Conclusion: According to professionals, the performance of health services in tuberculosis control with relation to focus on family is satisfactory, but guidance actions for the community are unsatisfactory.

Resumo

Objetivo: Analisar, na perspectiva dos profissionais de saúde, o desempenho dos serviços de controle a tuberculose em relação ao enfoque na família e a orientação para comunidade.
Métodos: Estudo transversal que incluiu 134 profissionais de saúde da atenção primária. Para cada variável foi determinado um escore médio, posteriormente, submetido à análise de variância.
Resultados: A dimensão enfoque na família obteve escore satisfatório e apenas a "variável entrega do pote de exame de escarro aos comunicantes" foi classificada como regular. A dimensão orientação para a comunidade foi classificada como insatisfatória, porém a "realização de trabalhos educativos" e a "busca de sintomáticos respiratórios na comunidade" atingiram escore regular.
Conclusão: De acordo com os profissionais, o desempenho dos serviços de saúde para o controle da tuberculose em relação ao enfoque na família é satisfatório, porém as ações de orientação para a comunidade são insatisfatórias.

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DOI
http://dx.doi.org/10.1590/1982-0194201500005

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Conflicts of interest: none reported.

Introduction

Tuberculosis is a curable disease with higher mortality rate in Brazil compared with rates in other developed countries.[1] Studies have estimated that one in every four Brazilians is infected with the bacillus that causes the disease. In Paraná state, southern Brazil, the tuberculosis incidence rate in 2010 was 22.9/100,000 inhabitants, which represented 3.4% of new cases of tuberculosis registered in the country.[2]

To control of the disease, health teams redistributed care with development of some actions, such as active surveillance for respiratory symptoms, request of examinations for diagnosis in contacts, recording information, treatment supervision, and patient discharge. In addition, to incorporating the family into the treatment of patients with tuberculosis, teams also have the responsibility to provide guidance actions for the community and to mobilize the population from a specific area to control the disease. They must also consider the need to create alternatives toward participative, collective, and integral health practices that are linked to the reality of community and capable of overcoming limitations of the health units.[3,4]

Based on these assumptions, the objective of this study was to analyze, from health professionals' perspective, the performance of services for tuberculosis control in relation to focus on family and community guidance.

Methods

This was a cross-sectional study conducted in an area administrated by the 15º Regional Health Office in Paraná. The Paraná state, southern Brazil, has 399 municipalities, grouped into 22 regional health offices that function as administrative instances intermediary to the Secretary of State for Health.

We included nurses and physicians who worked in tuberculosis control at basic health units and important outpatient units in the state. All employees who worked in the service for at least six months were included. Those on vacation, special license or medical leave during the period of data collection were excluded.

According to epidemiologic surveillance of the regional health office, a total of 231 health professionals worked in control actions against tuberculosis. Of them, ten were on special license or vacation, seven were on medical leave and 23 were hired for less than six months. As a result, we included 191 professionals. The number of professionals to be included in the study, considering the error in the estimate of 5% and confidentiality and sample precision in 95%, plus 10% for possible losses, resulted in 134 professionals, randomly selected by stratified block sampling (professional category and municipality).

Data were collected from July to September 2013 by interviews conducted at professionals' place of work. Interviews were previously scheduled by phone and included part of the Primary Care Assessment Tool instrument adapted for actions for tuberculosis control in Brazil. Answer options are presented on a Likert-type scale ranging from zero to five. Zero corresponded to "I do not know" or "Not applicable," and values from one to five indicated the degree of agreement with affirmations.

Data were entered into a Microsoft Excel® 2010 spreadsheet with double entry and were analyzed using the Statistical Package for the Social Sciences software. For descriptive data analysis, a mean score was determined for each question, which resulted in the sum of answers from all participants, divided by the total number of respondents. Answers were classified as unsatisfactory (less than or equal to three), fair (greater than three and less than four) and satisfactory (greater than or equal to four).

To assess the focus on family and guidance for the community, data concerning variables that satisfied presuppositions of independence, homoscedasticity and normality were submitted to analysis of variance using the F test. Variables that did not meet these criteria were analyzed using the Kruskal-Wallis test. In all tests a level of statistical significance of 5% was considered. The confidentiality of the questionnaire was verified using the Cronbach alpha (0.84).

Development of this study followed national and international ethical standards for research on human subjects.

Results

A total of 134 health professionals participated in the study. Seventy-eight (58.2%) were nurses and 56 (41.8%) physicians; of all respondents 56.7% had a specialist degree and 3.7% a master's degree. Most professionals (94.8%) worked in Family Health Strategy and the remainder worked in outpatient units that were the reference for tuberculosis in the state. The time spent working in the same position ranged from 6 months to 40 years (mean of 9.66±8.33 years). Most professionals (66.4%) had worked in tuberculosis control for four years or more, less than the half of the professionals (46.3%) had participated in continuing education activities on tuberculosis control, and 53% received specific training at their service. However, 59% of professionals considered themselves qualified to address tuberculosis cases.

Table 1 shows that dimension of focus on family had a mean score of 4.58±0.451, classified as satisfactory, and did not statistically significantly differ among professional categories except for the variable "knowing who lives with the patients". The variable "giving a sputum test container for contacts" was classified by physicians as fair and by nurses as satisfactory.

Table 1. Indicators of focus on family

Variables	Nurses Mean ± SD	Physicians Mean ± SD	p-value
Focus on family			0.598
Question about life conditions	4.73±0.767	4.63±0.983	0.486
Knowing who lives with patients	4.83±0.495	4.59±0.757	0.032*
Asking information related to diseases of those who live the patients	4.58±0.933	4.70±0.685	0.417
Investigating the disease in those who live with patients	4.82±0.503	4.82±0.543	0.992
Giving a sputum test container for contacts	4.04±1.418	3.82±1.515	0.397
Speaking with the family about the disease	4.68±0.814	4.73±0.618	0.685
Speaking with the family about the treatment	4.69±0.778	4.73±0.587	0.747
Speaking with the family about other health problems	4.41±1.050	4.43±0.988	0.919

*p-values <0.05; SD – Standard Deviation

The dimension of community guidance reached a mean score of 2.47±0.949, classified as unsatisfactory, and did not statistically significantly differ among professional categories. Variables with best classification were "advertising/campaign/educative actions to keep the community informed" and "looking for respiratory symptoms in the community", which reached a score classified as fair (Table 2).

Table 2. Indicators of guidance for the community

Variables	Nurses Mean ± SD	Physicians Mean ± SD	p-value
Community guidance			0.762
Service meets needs	1.59±1.232	1.61±1.317	0.938
Advertising/campaign/educational activities to keep the community informed	3.36±1.299	3.52±1.537	0.458
Partnership to identify respiratory symptoms	2.46±1.601	2.43±1.704	0.909
Discussion about the problem of TB with community representative	1.47±1.041	1.70±1.320	0.405
Looking for respiratory symptoms in the community	3.40±1.622	3.29±1.745	0.704

SD – Standard deviation

Discussion

Limitations of this study include the fact that the perspective of nurses and physicians may differ from the point of view of other professionals, patients receiving treatment, and health managers. However, the random selection strengthens our results and enables us to infer that the professionals' opinions obtained really represent the reality of care delivery for tuberculosis patients in municipalities analyzed with relation to focus on family and community guidance. The lack of significant differences between nurses' and physicians' perspectives seems to indicate integration among team members in recognition of almost all the same strengths and weakness on care delivery to tuberculosis patients.

Considering that focus on family and community guidance are important pillars for disease control, our results enable reflecting on deficiencies in the service. Because nurses are the professionals inserted into tuberculosis control actions and are responsible for coordination of the team, they have a crucial role to articulate and integrate care prac-

tices.[5] For this reason, nurses are the professionals with the greatest potential to broaden the efficacy of actions and improve the participation of users and family in care. Hence, to know how professionals, especially nurses, assess the needs for improvements in tuberculosis control actions will enable us to know, for example, that these needs are not isolated or limited to a specific context. This knowledge, in turn, can trigger efforts[5] toward implementation of strategies to improve the focus on family and community guidance.

Consideration of family participation in the care plan is crucial, particularly because patients find strength in and require support from their families for rehabilitation.[6] The feeling of not being supported can lead to abandonment of therapy. For this reason, it is necessary to recognize and consider social, economic and family aspects, in order to establish autonomy and co-responsibility of health care.[7] Professionals who participated in this study agreed with the need to consider such aspects, mainly because focus on family had a satisfactory score. Although integration is lacking among users, family and the health team, tuberculosis control actions and patient follow-up are, in general, developed together with the family.

A study conducted in China reported that although many patients are aware that tuberculosis can be cured, they feel disappointed and unhappy with the diagnosis because they fear being intimidated by their family. For this reason, they postponed treatment and informing the family of the diagnosis or even neglected to do so entirely.[8] However, in the specific case of tuberculosis, it is essential that health professionals get to know and investigate all family members and others who had contact with the patient[9] in order to provide guidance about the disease and treatment and to help them to understand the situation and support the patient. A study conducted in Spain reported that life without family members is one of the main reasons for non-adherence to the treatment.[7]

Concerning disease transmission, data showed a contradiction among responses: Professionals reported investigating the disease in communities, but the variable "giving a01 sputum test container" had only a fair score. This means that this action is not conducted with the necessary frequency. A meta-analysis identified that despite the investigation, monitoring and control of contacts lack systematization, especially because they are at higher risk of exposition than general population, therefore establishing the assessment of contacts as an investigation priority to decrease the tuberculosis incidence.[9]

Because patients with tuberculosis have contact with other individuals, the World Health Organization recommends prophylaxis in, recording of, and control of those who had direct contact with such patients as a strategy for detecting new cases; this strategy includes the request for tests to investigate contacts.[10,11] Health professionals need to explain clearly how the exam will be done and its importance for the patient and contacts in helping to completely eliminate the disease in the community. (3) Therefore, the professional needs to completely understand the disease, in order the patient trust on his/her guidance.[12]

In agreement with this recommendation, the Brazilian National Program for Tuberculosis Control foresaw that primary care should be the main environment for diagnosis of the disease,[10,13] particularly because counts with the Family Health Strategy as a partner in identifying respiratory symptoms and following up families. This program also foresaw that, at home visits, when any individuals with symptoms or other factors are identified, the health community agent should refer the individual for health service in order to investigate the disease, especially considering the decentralization and making ease the access of patients.[14]

In the dimension of community guidance, scores were classified by physicians and nurses as unsatisfactory, considering that actions not occur with frequency and regularity needed. This situation points out the need for health professionals to incorporate in their working process actions that increase the participation of users and society[15,16] by local discussions about disease control; doing so will enable the assessment of service delivery and also improve understanding of the needs of the population.[17]

Professionals also considered relevant the need to create advertisements, campaigns and educational activities to inform the community about the disease; even though tuberculosis is a well-known disease, many people, including health professionals, do not identify it. This lack of recognition can, as shown in our study, lead to symptoms being ignore, late diagnosis, and delayed treatment.

In addition, as a strategy to control the disease, it is emphasized that health professionals must mobilize communities to identify "chronic coughers" within families, at clubs, churches, and other venues and refer them for sputum testing, so that developing fundamental activities for community health.[18] Indeed, community participation is fundamental to early diagnosis, adherence to treatment and reduction in rates of therapy abandonment; in addition, these practices might help to encourage the fight against the stigma and prejudice toward tuberculosis.[19]

In this way, community should not only know what the disease is but also how it is transmitted and the community's co-responsibility to control and prevent it. The community must be informed and guided by health educational program about the disease, its preventions in efficient manner by health teams by interdisciplinary actions.[9,18]

Professionals pointed out that partnership with communities to identify respiratory symptoms is insufficient and probably has been discontinued, which undoubtedly negatively affects control of tuberculosis. A study carried out in Barcelona showed that actions that reinforce the response of the patient and encourage the participation of the community are more effective, especially measures conducted by community agents who are part of the own community and give the population a sense of trust.[20] In this sense, the non-development of actions to control tuberculosis by health professional that involve the community and nor health educational actions or guidance about the disease and its prevention, undoubtedly negatively affects control of tuberculosis.

In relation to the request for community participation in discussing the problem of tuberculosis, this indicator poses a concern because according to professionals, such participation basically does not occur. In the current scenario the role of health agents in addressing tuberculosis is imperative. In addition, other important factor is the participation of those who represent the population affected by the problem. The partnership between community and community agents had shown effective result in several countries, also improving organization of health service and facilitating to implement new public policies to control tuberculosis.[14]

In our study the active search for respiratory symptoms was characterized as fair and this action must become a permanent behavior and incorporated into the routine of all members of health teams. A passive search, characterized by assistance for the spontaneous demand of tuberculosis cases, increases the problem of late diagnosis and delays the beginning of treatment. A study on delay in tuberculosis diagnosis conducted showed that, although the active search does not occur regularly, it is important to develop strategies in this sense, especially considering that early diagnosis, besides decrease of transmission of the disease favors the treatment and cure.[21]

For a disease with social implications, such as tuberculosis, health education must be a main component of care in order to strengthen patients[15] and mobilize the community. In addition, participation in specific events, such as celebration dates, besides to enable treatment and access to health service, can also improve quality of life.[17] Educational practices must be developed personally or collectively to promote healing and rehabilitation and to encourage users and community to be partners and protagonists in the therapeutic project and mobilizations for broader right to health care.[22]

However, continuing education is essential to the team (nurses, physicians, community agents and reception staff) in order to correctly and safely promote health education. The community health agents, for example, have the important role of promptly detecting tuberculosis cases, although several actions are done in individualized

and nonsystematized manner. Despite, the work developed by community agents has been recognized in several countries with high rates of tuberculosis, even in those countries with scarcity of professionals. These agents turn health series more accessible to patients who are often stigmatized and discriminated.[14]

In addition, only specific training on tuberculosis does not guarantee efficacy of the health care process for users. This process must be associated with availability of material and human resources and the adoption of adequate policies. Hence, there is the need to reflect on the actions of nurses as a critical profession, emphasizing the importance of treatment and discussion of the subject based on a balance between care and quality of life.

Conclusion

According to professionals, the performance of tuberculosis control services related to the focus on family is satisfactory; however, educational actions for community guidance are unsatisfactory.

Acknowledgments

This study was supported by the Fundação Araucária de Apoio ao Desenvolvimento Científico e Tecnológico do Estado do Paraná (Protocol 21320), public notice – Research developed for SUS throughout the project "Tuberculosis care and control in Paraná state".

Collaborations

Cecilio HPM and Marcon SS contributed to the conception and development of the study, analysis and interpretation of data, drafting of the manuscript, critical review relevant for intellectual content and approval of final version of the manuscript to be published. Higarashi IH contributed with analysis and interpretation of data, drafting of the manuscript, critical review relevant for intellectual content and approval of final version of the manuscript to be published.

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