Discourses on short-course therapy for tuberculosis control

Discursos sobre a terapia de curta duração para o controle da tuberculose

Discursos sobre la terapia de corta duración para el control de la tuberculosis

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How to cite this article:

Submission: 08-09-2016 Approval: 10-02-2016

ABSTRACT

Objective: to analyze the meanings produced through the experiences and perceptions of healthcare professionals on the implementation of the strategy of directly observed treatment short course for tuberculosis control. Method: qualitative study carried out in Mozambique with 15 healthcare professionals. Inclusion criteria: having acted in the Tuberculosis Control Program for more than one year, and exercising professional activity at the time of interview. A semi-structured script was used for data collection, and individual interviews were recorded. Results: three discursive units emerged: patient treatment procedures; community health agent and family roles; difficulties in the application of directly observed treatment short course. Conclusion: treatment of tuberculosis requires constant involvement of the family, community, and especially the State in the creation and implementation of personnel training policies and infrastructure improvement.

Descriptors: Nursing Care; Community Health Nursing; Public Health Nursing; Tuberculosis; Public Policies.

RESUMO

Objetivo: analisar os sentidos produzidos por meio das experiências e percepções dos profissionais de saúde sobre a implementação da estratégia do tratamento diretamente observado de curta duração para o controle da tuberculose. Método: estudo qualitativo realizado em Moçambique com 15 profissionais de saúde. Critérios de inclusão: atuação no Programa de Controle da Tuberculose há mais de um ano e estar em atividade profissional no período da entrevista. Para a coleta de dados foi usado um roteiro semiestruturado e as entrevistas realizadas individualmente foram gravadas. Resultados: emergiram três unidades discursivas: os procedimentos no tratamento do doente; o papel do Agente Comunitário da Saúde e da família; as dificuldades na aplicação do tratamento diretamente observado de curta duração. Conclusão: o tratamento da tuberculose requer um envolvimento constante da família, da comunidade e principalmente do Estado na criação e aplicação de políticas de formação dos recursos humanos e melhoria de infraestruturas.

Descritores: Cuidados de Enfermagem; Enfermagem em Saúde Comunitária; Enfermagem em Saúde Pública; Tuberculose; Políticas Públicas.

RESUMEN

Objetivo: analizar los sentidos generados a partir de experiencias y visiones de profesionales de salud sobre la implementación de la estrategia del tratamiento directamente observado de corta duración para el control de la tuberculosis. Método: estudio cualitativo realizado en Mozambique con 15 profesionales de salud. Criterios de inclusión: actuación en Programa de Control de la Tuberculosis mayor a un año y estar activo profesionalmente durante el período de la entrevista. Datos recolectados utilizando rutina semiestructurada; las entrevistas individuales fueron grabadas. Resultados: surgieron tres unidades discursivas: procedimientos en el tratamiento del enfermo; papel del Agente Comunitario de Salud y de la familia; dificultades en aplicación del tratamiento directamente observado de corta duración. Conclusión: el tratamiento de la tuberculosis requiere de constanté participación de la familia, la comunidad y, principalmente, del Estado; en la determinación y aplicación de políticas de formación de recursos humanos y mejoras de infraestructura.

Descriptores: Atención de Enfermería; Enfermería en Salud Comunitaria; Enfermería en Salud Pública; Tuberculosis; Políticas Públicas.

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INTRODUCTION

Tuberculosis (TB) control using directly observed treatment short course (DOTS) has become advisable worldwide, specifically for the 22 countries most affected by TB, including Mozambique, which ranks third in the world. It constitutes, therefore, a serious public health problem, being one of the most deadly diseases among populations1,2.

In its guidelines, DOTS advocates the detection of TB cases, directly observed treatment (DOT), regular medicine provision, case registration system, and government commitment, placing TB control as a priority among health policies3,4. This strategy has proved effective in curing TB. It is noteworthy that between the years 1995 and 2012, when 56 million people were treated and cured in countries that adopted the DOTS strategy, 22 million lives were saved5,6.

Mozambique began using the DOTS strategy even before it was proposed by the World Health Organization (WHO) through the TB control program, with the support of the International Union Against Tuberculosis and Lung Disease (IUATLD), which assisted the country in the DOTS implementation in the 1980s4,6. Currently, Mozambique remains among the countries that, according to the WHO, cannot reduce TB incidence, prevalence and mortality rates. Estimated new cases are around 140,000 per year, of which only 50% begin medical treatment, corresponding to an annual growth rate of 9%, and a prevalence of 556/100,000 inhabitants3,4,6. When implemented, the DOTS strategy is effective; however, in Mozambique, the coverage of this policy reaches only 50% of the population diagnosed with TB. Complementing this context, some studies indicate barriers to the DOTS implementation, such as the lack of human, material and financial resources, in addition to the HIV pandemic, which influence disease control3,4. In this sense, there are no studies that discursively explore the perceptions and experiences of healthcare professionals involved in the DOTS implementation. Thus, an analysis of the meanings produced in healthcare professionals’ interlocution process from experiences in the socio-historical context, that is, production conditions in the DOTS implementation, what can and must be said in a given ideological formation, and in a specific socio-historical connotation is important. In light of the previously exposed, it is emphasized that words alone have no meaning, because their meanings come from the discursive formations to which they are inscribed and, in turn, these (discursive formations) represent ideological formations in the discourse, which is to say that “meanings are determined ideologically”9.

According to DA, ideological formation is understood as the “complex set of activities and representations which are neither individual nor universal, but relate more or less directly to the positions of classes in conflict with each other”6,7. From this perspective, individuals are claimed to be talking subjects by ideology, through their corresponding ideological formations8. Thus, the DA subject is “linguistic-historical and constituted by ideology”8; in other words, the subject is constituted by the positions taken by the individual as a speaker.

METHOD

Ethical aspects

Participants were informed of the research objectives and confidentiality/anonymity, having signed a free and informed consent form. They were also informed of the right to leave the interview at any time, if they so wished. In order to preserve participants’ anonymity, the letter “S” was used to represent the subject in interviews, followed by the initial letter of the professional category (M - Manager, P - Physician, NP - Nursing Professional, MT - Medical Technician), and an Arabic numeral indicating the sequence of interviews. The research began after approval of the protocol by the Mozambique National Bioethics Committee for Health (NBCH) on April 3rd, 2014, reference number 87/NBCH/2014, and registered in the same committee with the number 03/NBCH/2014, in accordance with the requirements of the Declaration of Helsinki. It was also approved by the Mozambique Minister of Health with note number 731/GMS/002/2014.

Type of study

Qualitative exploratory study using the theoretical-methodological framework of discourse analysis, henceforth (DA), of French matrix.

Theoretical-methodological framework

Epistemologically, DA is based on linguistic, materialistic and psychoanalytic philosophy6,9. It understands language as a necessary mediation between human beings and the social and natural reality8. In this context, DA makes it possible to understand the health-disease process through the meaning dimensioned “in the time and space of human practices”8. Meanings result from discourse relations, that is, for a saying to have a meaning, it needs to be related to other sayings. Thus, it is pointed out that words only produce meanings if they are inscribed in a certain discursive formation. Discursive formation is understood as what determines what can and must be said in a given ideological formation, and in a specific socio-historical connotation8. In light of the previously exposed, it is emphasized that words alone have no meaning, because their meanings come from the discursive formations to which they are inscribed and, in turn, these (discursive formations) represent ideological formations in the discourse, which is to say that “meanings are determined ideologically”9.

Study setting

The study was carried out in Mozambique, at the Ministry of Health (central level) and at the province of Nampula (provincial level), in the districts of Mecuburi, Mucate, Nampula-Rapale, Ribaue, Murrapula, Meconta, Mogovolas and Monapo. Data collection occurred from May to August 2014.

Data source

Fifteen subjects were interviewed, including six managers, three physicians, four nursing professionals and two medical technicians. These professional categories were chosen because they are directly involved in the DOTS implementation, through the National Tuberculosis Control Program (NTCP). Inclusion criteria were: to have professional experience for more than a year with the NTCP, and to be working at the time of data collection. Thus, participants were selected through...
the convenience sampling technique, and there was no refusal to participate in the study.

**Data collection and organization**

A semi-structured interview script was used to collect data, and the items that guided the interview were: (i) Comment on the DOTS implementation; (ii) What barriers are identified in the DOTS implementation process? (iii) What are the facilities found in the DOTS implementation? (iv) What has been your experience with the DOTS implementation? (v) What is your perception about the DOTS implementation? Interviewees were contacted individually by the researcher, who explained the research purposes. If they accepted to participate, a date was scheduled for the interviews, which were recorded using a digital recorder. All interviews were performed in places defined by each interviewee, without interference, and lasted from 30 to 45 minutes.

**Data analysis**

In-depth readings were carried out for data analysis, resulting in three discursive units: procedures in patient treatment; roles of the community health agent (CHA) and the family; and difficulties in applying the DOTS. Starting from the conception that DA “does not seek the true meaning, but the real meaning in its linguistic and historical materiality”8, the analytical instrument follows the three stages proposed by Orlandi8.

In the first step, going from the linguistic surface to the discursive object, based on the symbolic material (transcribed interviews), several readings were made to dissociate words and things, looking for the relation of saying and not saying. Thus, the discursive formations that dominate the discursive practice in interviews were glimpsed. This step allowed delimiting cuts and discursive sequences in analysis.

In the second step, from the discursive object to the discursive process, the distinct discursive formations were related to the ideological formation that governs these relations, understanding the produced meanings.

Finally, in the third step, discursive process (ideological formation), a return was made to the discursive sequences that constitute the object of analysis by mobilizing the existing theory on the subject under study, and relating it to the existing socio-historical context, thus adopting the principle that the production process of meanings is subject to mistakes, and there is always another one that constitutes it5,7,8.

**RESULTS**

The positions “subject”, “manager”, “physician”, “nursing professional” and “medical technician” refer to a first discursive unit from their professional functions: procedures in patient treatment, mentioning some technical attributions as members of their experiences in the DOTS implementation, such as the request for examination, supervision of medication intake through direct observation, and continuous patient monitoring until the disease outcome:

*The patient with suspected TB is observed at a normal consultation, and is asked to take the Koch Bacillus test. (SP1)*

[... the patient is accompanied to the NTCP sector. After starting treatment, [...] is monitored daily. (SM2)]

The following excerpt reinforces the demands placed on the patient during the treatment process, and the role of professionals in controlling the treatment process:

[... the patient has to come to the healthcare unit every day to get the medicine, with the exception of Saturdays and Sundays. Patients who need injectable medication should come on Saturdays. (SM2)]

Interviewees described the phases of the patient’s follow-up process, and their role in monitoring and requiring the patient to comply with the treatment:

*In a first phase, we hospitalize the patient. [...] here, the patient moves to the outpatient phase, and during that time he regularly visits the NTCP because he must be observed taking the medication there. After a month, we are sure that the patient takes the medication, because we demand the card and evaluate whether it is worth it, whether the patient takes it or not at home. (SP5)*

Healthcare professionals mention how TB case reports are made, especially where there are no conditions for monitoring the disease:

[ [...] all medical units with a laboratory have the notification system, but further elaborating the question: the units that do not have a laboratory receive the patients diagnosed by medical units with laboratories. (SMT3)]

The statement about the importance of CHAs and the family in the DOTS implementation and maintenance for TB treatment emerged in the second discursive unit, but professionals recognized the difficulties of CHAs:

[ [...] despite the difficulties we have, the CHAs, they make sacrifices, bring the samples that are processed locally, and then sent back to the communities. (SNP4)]

In addition to recognizing the importance of CHAs and their difficulties, healthcare professionals reported a lack of incentives:

*Community agents, yes sir, they work, but we wish they received incentives. (SNP10)*

They also mention activities of CHAs:

*We do not have representatives in the nine healthcare units, we only have community health agents. They are doing sputum collection, or organizing the population, we go there, collect the samples, and do the analysis. (SM7)*

Respondents also identified positive aspects of the DOTS, such as involving the family in the patient treatment, and reducing hospitalization in healthcare units, in addition to
increasing patient adherence to treatment, as can be seen in the following excerpts:

[...] also, the patient being in the family environment, they feel supported and the improvement process becomes easy. (SNP8)

I think this practice is good because it improves the TB patient follow-up and treatment, especially in the intensive phase, during the first two months. (SM10)

When we enter the short duration, abandonments begin to decrease. (SNP9)

In the third discursive unit, all interviewees mentioned as DOTS difficulties: lack of adequate infrastructure for TB treatment; lack of professionals in quantity and quality; low monitoring, long distances between patients’ homes and the healthcare unit, lack or inexistence of public transportation for the populations; insufficient financial and material resources, and lack of incentives for healthcare professionals:

[...] in healthcare units, if I remember correctly, in 80% of the healthcare units in the country you will find one or two healthcare technicians who must do everything that is inherent topriority health care: screenings, vaccinations, weighing, mother-child health consultation, births, etc. (SM6)

There are difficulties, one of them is distance, because patients take the medication home and some patients live very far. Patients have transportation problems, and the DOTS reduces trips to the healthcare unit. (SMT3)

The main difficulty is the TB system itself, starting with infrastructure. In many of the healthcare facilities, infrastructures have not been properly designed to enable effective infection control: small compartments, with small windows and poorly aired. (SM14)

We have the low oversight of BK+ cases. (SP13)

Professionals also identified the lack of laboratories as one of the problems that make the DOTS operationalization unfeasible:

[...] we have distant healthcare facilities, without laboratories [...]. (SM11)

[...] Regarding this, we haven’t reached 60% of our diagnostic rate. (SM12)

DISCUSSION

It is worth noting that the study data reveal an understanding of the DOTS weaknesses and potentialities for TB control in a country highly burdened by this disease. Therefore, the discourse is influenced by several ideologies, placing the possibility of multiple interpretations, provided that the production conditions in which the discourse was generated are taken into account.

In the first discursive unit, professional health subjects identify themselves with the discursive formations that place the patient in the position of an incapacitated subject, who must be submitted to the orders imposed by the healthcare service. A scientific-medical-persuasive discourse is observed in the excerpts, represented by the discursive sequences “it is observed in a consultation”; “an examination is requested”; “the patient is accompanied, is accompanied daily”; “has to come”; “get the medicine”; “must do”; “must go”. The statements of the subjects’ positions are formulated from an imaginary according to which the patient should submit to medical orientations and orders resignedly. Patients’ submission to the examination gives the professional subject knowledge, besides power over patients and their illness. In this context, the examination is at the center of the processes that constitute the individual as effect and object of power[10-11].

Linguistic marks “we hospitalize the patient. [...] here, the patient moves to the outpatient phase [...]”; “he regularly visits the NTPC because he must be observed taking the medication there” gather vestiges of a dominating discourse of the body, inscribed in a biologist medical science, which allows to observe the subject influenced by the institutional memory that rules that the patient must be controlled until cured[1,4,12]. In this case, the medical power system before patients disciplines them. The power of individualization has as its fundamental instrument the examinations that they constitute as permanent, classificatory surveillance, which will allow to distribute and classify individuals[11]. In this view, the discipline applied to the patient guarantees mediation.

The domination over the patient extends to the discursive sequence: “we are sure that [...]”. The imaginary subject formation is observed here, believing that the fact that the patient takes the medication in the first month under observation implies the certainty of compliance with the treatment. The actions of demanding medication intake, evaluating the patient and requesting the registration card are part of the literature practices on TB treatment and adherence[1,12-13].

The discursive sequence “all medical units with a laboratory have the notification system” indicates that case notifications are not thorough in all districts, and that the people examined in other centers with laboratories are those who most need the examination. The discursive sequence: “we only have community health agents [...]” produces meanings that point out that CHAs are the link between the community and healthcare services, because they make sure that the population’s needs reach the healthcare professionals responsible for the DOTS application, and on the other hand transmit essential information to communities[14-16].

A subject acknowledged the action of CHAs: “community agents, yes sir, they work, but we wish they received incentives.” In recognizing the volunteers’ action, the subject denounces the lack of incentives for CHAs. It is noted that the denunciation of the subject is permeated by the interdiscourse as something already said somewhere, because it is inserted in the reports of the Ministry of Health that have pointed out the lack of material support, that is, incentives to the CHAs for the work developed in the communities[17].
The subjects interviewed perceive the DOTS as an important TB control strategy: “it is good”; “it improves follow-up”; “abandonments begin to decrease”. In this case, subjects present the WHO discourse which describes the DOTS as essential in increasing case detection and reducing abandonment beyond the increase in cure rate⁶. The family is also described as one of the important pillars in the healing process: “[...] they feel supported”. These discursive linguistic marks indicate that TB should be considered as a socially determined illness, which implies the involvement of the family and society in combating it, because the family is the first instance of health care, and it is the most significant microstructure for the patient¹⁸-¹⁹.

In the third discursive unit, subjects present what they consider to be the main obstacles in TB treatment. The discursive sequence “[...] in 80% of the healthcare units in the country you will find one or two healthcare technicians [...]” denounces the work overload and the lack of healthcare professionals, which constitute a serious problem for healthcare services in Mozambique²⁰-²¹. The significant number 80% indicates the seriousness of this professional shortage, and of healthcare services coverage in the country.

The denunciation of infrastructure inadequacy for TB patient care is also noted, and consequently of the risk of contagion that healthcare professionals and other users are exposed to, as represented by the linguistic marks “[...] the main difficulty is the TB system itself, starting with infrastructure [...]”; “small compartments, with small windows and poorly aired”. These marks also produce meanings about the government’s difficulty in complying with the NTCP guidelines and the WHO recommendations on TB treatment sites, which must be ventilated. Some studies in Mozambique showed that the guidelines for TB diagnosis and treatment were not present in all facilities, and few healthcare units had adequate ventilation⁴,¹⁵,¹⁹,²¹.

Long distances and lack of transportation were perceived as difficulties. The linguistic marks “patients live far away”; “patients have transportation problems” evidence one of the factors that contribute to the lack of adherence to treatment. Indirectly, discursive sequences may also indicate low monitoring, because patients have difficulties to go to the healthcare unit to be observed, but they can also produce meanings that TB treatment in these conditions entails monetary costs for patients²².

Study limitations
This study’s results are limited because it was based on the experience of healthcare professionals who faces specific situations before the DOTS strategy implementation, and not on the experience of TB patients.

Contributions of the study to the nursing, healthcare or public policy areas
This study, although carried out within the Mozambican reality, points out important aspects that can be observed in scenarios of high TB burden, such as: lack of quantity and quality of healthcare professionals, lack of laboratories for case detection, professionals’ work overload, long distances between patients’ homes and the healthcare unit, lack of transportation, meanings that professional subjects carry about what the patient is, and the importance of the involvement of CHAs and the family in the TB control process. These statements add available knowledge in that they require the design of policies that focus on training professionals and new local practices for TB control.

FINAL CONSIDERATIONS
Healthcare professionals, through their experiences, produce circulating meanings in their speeches about the daily life in the DOTS implementation, which is related to the potential of success in patients’ cure with family support. For weaknesses, these are related to persuasive surveillance and difficulties in reducing TB cases, with a view to recognizing health services access and organization limitations, as well as financial support for keeping professionals’ motivation, and satisfactory development of patient care and the management process. In this context of high TB burden, the disease treatment requires constant involvement of the family, community, and especially the State, in the creation and implementation of personnel training policies and infrastructure improvement, beyond acting on social health determinants.

FUNDING
This research was funded by the Coordination for the Improvement of Higher Education Personnel (CAPES).

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