DOES DIRECTLY OBSERVED TREATMENT ("DOTS") CONTRIBUTE TO TUBERCULOSIS TREATMENT COMPLIANCE?

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This is a qualitative study performed in the theoretical framework of the Theory of Social Determination of the Health-Disease process and the concept of Compliance. The goal was to analyze meanings of DOTS in compliance with tuberculosis treatment, according to healthcare professionals of the Technical Healthcare Supervision of Butantã (SUVIS), a region of the São Paulo City Healthcare Secretariat, Brazil. The project was submitted to the Ethics Committee of the São Paulo Municipal Health Secretariat. All professionals (22 people) developing DOTS were interviewed, including service coordinators, healthcare professionals and the DOTS coordinator for the region. The statements were analyzed with an appropriate technique for discourse analysis. The results appoint that the strategy presents more potentialities than limits and is effective regarding compliance, since it allows the professionals to welcome and monitor the patients, considering their needs. The importance of increasing the understanding of compliance is also noted, so that it can go beyond the simple intake of medication, integrating the care for the sick person and his or her necessities by transcending those restricted to the biological dimension.

DESCRIPTORS: tuberculosis; epidemiology; directly observed therapy

¿EL TRATAMIENTO CON SUPERVISIÓN DIRECTA ("DOTS") CONTRIBUYE PARA LA ADHESIÓN AL TRATAMIENTO DE LA TUBERCULOSIS?

Se trata de un estudio cualitativo realizado bajo el marco teórico de la Teoría de la Determinación Social del Proceso Salud Enfermedad y el concepto de Adhesión. El objetivo fue analizar los significados de la DOTS en la adhesión al tratamiento de la tuberculosis, según la visión de profesionales de la salud de la Supervisión Técnica de la salud del Butanta de la Secretaría de la salud del Municipio de San Pablo. El proyecto fue sometido al Comité de Ética. Se entrevistaron la totalidad de los profesionales (22 personas) que desarrollaban la DOTS incluyendo coordinadores de servicios, profesionales asistenciales y el coordinador de la DOTS en la región. Se analizaron las declaraciones según la técnica de análisis de discurso apropiada. Los resultados apuntan que la estrategia presenta más potencialidad que límites y es efectiva en la adhesión, por permitir acoger y monitorear el enfermo considerando sus necesidades. Se apunta la importancia de ampliar el entendimiento de la adhesión, más allá de la ingestión de la medicación, integrando el cuidado del enfermo a partir de sus necesidades, trascendiendo aquellas restrictas a la dimensión biológica.

DESCRIPTORES: tuberculosis; epidemiología; terapía por obsrevación directa

O TRATAMENTO DIRETAMENTE SUPERVISIONADO (DOTS) CONTRIBUI PARA A ADESÃO AO TRATAMENTO DA TUBERCULOSE?

Estudo qualitativo, realizado sob o marco teórico da Teoria da Determinação Social do Processo Saúde Doença e conceito Adesão. O objetivo foi analisar significados da DOTS na adesão ao tratamento da tuberculose, segundo profissionais de saúde da Supervisão Técnica de Saúde do Butantã da Secretaria de Saúde do Município de São Paulo. O projeto foi submetido ao Comitê de Ética. Entrevistou-se a totalidade dos profissionais (22 pessoas) que desenvolviam DOTS, incluindo coordenadores de serviços, profissionais assistenciais e coordenador da DOTS na região. Analisou-se os depoimentos, segundo a técnica de análise de discurso apropriada. Os resultados apontam que a estratégia apresenta mais potencialidades do que limites e efetividade na adesão, por permitir acolher e monitorar o doente considerando suas necessidades. Aponta-se a importância da ampliação do entendimento da adesão para além da ingesta da medicação, integrando o cuidado do doente a partir de suas necessidades, transcendendo aquelas restritas à dimensão biológica.

DESCRITORES: tuberculose; epidemiologia; terapia diretamente observada

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INTRODUCTION

The study is part of a research group that uses the analytical category *compliance*, one of the branches of the CNPq Research Group "Compliance, necessities and vulnerability in Collective Health". Studies[1-3] note that compliance with treatment extrapolates the approach that reduces the health needs to clinical and biological aspects, especially when it comes to tuberculosis, which is directly associated to social structure. People's insertion into society determines conditions for the strengthening/ limiting of life, and social inequalities make individuals vulnerable to the development of a disease[4-5]. One of the main issues, which makes the problem of the disease even more complex, is the abandonment of treatment, with serious repercussions in the epidemiological scenario. There is an important amount of scientific contributions pointing out that the abandonment of treatment is associated to certain behaviors, HIV co-infection and a history of previous treatment for tuberculosis[4-7]. However, it should be considered that compliance with treatment transcends the traditional clinic, and is related to how the patients conceive the disease and how they live, as well as the organization of healthcare services[1-2].

As a result of the worldwide situation of tuberculosis, in 1993, the World Health Organization recommended the implementation of DOTS, aiming to guarantee treatment compliance. A study[8] shows that the amount of international outnumbers the national publications, which, however, present similarities, since their analyses happen within the scopes of multicausality. They factorialize, and do not attribute hierarchies and weights in the determination of the disease in terms of treatment success or failure.

Tuberculosis is one of the most famous examples that evidences the social production of the disease. In a country like Brazil, the magnitude of social inequalities that make individuals vulnerable to the development of tuberculosis should be taken into account. Particularly in the city of São Paulo, there is a significant gap in research terms, a fact that justified the present study. As such, the authors attempted to identify the meanings of DOTS, according to healthcare professionals working with the SUVIS in Butantã-SP, aiming to apprehend its limits and potentialities regarding treatment compliance.

METHOD

This is a qualitative study, using the statements of healthcare professionals working in management or care areas of a Tuberculosis Control Program. The analysis of the study object, the operationalization of DOTS, and its impact on the process of compliance with treatment are based on the theoretical reference of the Social Determination Theory of the Health-Disease Process, which considers disease as a part-whole of the social process and the concept of *compliance*[1-2]. The author proposes that compliance transcends the act of medication intake, and is directly related to the place the individual occupies in the process of social production and reproduction, as favorable or limiting conditions occur for the conclusion of therapeutic[1-2]. Furthermore, it refers to the conception of health-disease that sick individuals present, as well as to aspects related to the organization of the healthcare services.

The project was submitted to the Ethics Committee of the São Paulo City Health Secretariat and received authorization for its execution with the SUVIS of Butantã, São Paulo. Data were collected with a pre-tested, semi-structured interview script, and the statements were integrally recorded and transcribed. The discourse analysis technique was used to decode the empirical material, and the statements yielded thematic sentences[9-10]. All professionals working with the DOTS in the SUVIS Butantã region were interviewed, totaling 22 subjects: nine Basic Healthcare Unit (BHU) coordinators (managers), thirteen healthcare professionals: three physicians, five nurses and five nursing auxiliaries, besides the Coordinator of the Tuberculosis Control Program and DOTS at SUVIS Butantã. The interviews were held from May to July/2006. The study field was composed of seven BHU of SUVIS Butantã.

RESULTS

Eighteen subjects were female and four were male. As for the subjects' age, two were between 21 and 30 years old, five were between 31 and 40, five between 41 and 50, eight between 51 and 60 and two over 61. Among the nine BHU coordinators (managers), eight were female and only one of them was under 40 years old. Only three coordinators mentioned not having received specific training to work

with tuberculosis. Among the 13 healthcare professionals working directly with the patients, 11 were female. The three physicians stated that they had received training, and all of them held specialist degrees in public health. Among the five nurses, only one mentioned not having experience and training in this area, while the others mentioned that their learning was the result either of daily work practice or because they had been oriented by the SUVIS Butantã. All five nursing auxiliaries mentioned that they had not been trained for DOTS, but they said that they were supervised by the BHU nurse.

Thematic sentences emerged from the analysis of the statements, which are briefly presented below. When the subjects' expression is considered to illustrate the presentation of the findings more effectively, the statement presented in italics was preserved.

The meanings of Observed Treatment (OT)

The BHU coordinators and the coordinator of PCT and DOTS in the region

OT is considered an *efficient strategy* to control difficulties of low compliance with tuberculosis treatment, and an *investment* to increase cure rates and decrease abandonment. As for their meaning, there were mentions that it refers to *seeing, controlling and observing* medication intake, *guaranteeing* treatment compliance. It is possible to break the transmission chain, achieve cure and avoid *consequences* of incorrect treatment by *providing communicant follow-up*, addressing difficulties in treatment, decreasing resistance to medication, *organizing healthcare services* and allowing everybody to *speak the same language*.

Regarding the indication of OT, it is the healthcare professional who defines which patients should be kept under the strategy, which is generally recommended to patients presenting a disease relapse or abandonment of previous treatment, and to patients who *are troublesome*. However, some statements appointed that OT should be offered to all patients. On the other hand, some consider that OT does not allow for patient autonomy. Still, there were mentions that, due to the current situation of tuberculosis, it should be *mandatory* and *a priority* at the BHU, permitting these patients to *decide* how treatment can be performed.

Regarding the frequency of OT, some subjects noted that it was performed daily. About that, several subjects mentioned that the OT assumes *police-like* characteristics, affecting patient privacy. Some coordinators advocate that it should be done weekly, or every two or three days.

The healthcare professionals

These subjects' statements reveal that DOTS means *seeing, demanding, guaranteeing* compliance, avoiding abandonment, guaranteeing a cure, controlling the transmission of TB, and that it is a moment to create bonds. As for the indication of DOTS, it was said that it should be mandatory for everybody. Other professionals mentioned that it should be indicated only to those who are *rebellious, complicated, complex, unaware* of the disease and resistant to medication. The statements appoint that making DOTS operational involves orienting the patients and their families about the treatment and gravity of the disease.

The role of the healthcare team, besides supervising medication intake, involves receiving and accompanying the patient during the therapeutic process. As for the place where OT should be performed, the BHU or the patient's home was alluded to, with the BHU being noted as the appropriate place, since it has good physical structure.

Regarding OT frequency, it was mentioned that some of the BHU perform it daily, preferably in the morning period. In other units, OT is performed three times a week. According to the statements, the BHU execute OT in different ways, aiming at seeing to the patients' needs.

It was also seen that the patients *engage* themselves in DOTS. The healthcare professionals when possible, involve the patient´s family members in the process, making them responsible for supervising medication intake at weekends. When the patient does not attend OT, the healthcare team contacts the patient or the family, by telephone or by having either a Community Health Agent or the nursing team visit the patient's home.

The incentives offered to the DOTS patients are important for treatment compliance. The *differentiated patients*, i.e. those who have a *better socioeconomic condition*, do not receive food from the program.

As for the mentioned limitations of DOTS, there were references that the strategy is bureaucratic, that it is not offered by all healthcare professionals, that knowledge about the strategy among the healthcare professionals is not enough, and that the irregular provision of incentives causes problems for the relations among healthcare professionals, patient and family members, since the latter are considered responsible for this failure. Besides, it was pointed out that OT does not enable the patients to become responsible for their own treatment, attributed to the healthcare team, which ends up *carrying* the patient.

DISCUSSION

Usually, the interpretations of the BHU coordinators and healthcare professionals performing DOTS at the BHU do not differ. In the statements, they mention that DOTS supports compliance with treatment, even though it is not enough to overcome the problem of tuberculosis.

By making the continuous follow-up of the patient possible, DOTS allows for the establishment of a relationship with the healthcare professional. As a result, patients feel welcome when presenting a complaint and, also, have easier access to the health professionals.

The maintenance of high compliance rates is indicated as a consequence of DOTS and healthcare professionals' efforts to maintain adequate communication with the patients[11]. As such, the communication process is not constrained to a one-dimensional logic, but assumes an open listening channel. Hence, OT is not restricted to the observation of medication intake, but expands to sharing and listening to the necessities[2].

As shown by the testimonials, OT is interpreted as any activity that may "assure" the maintenance of treatment and should be kept at the BHU, which does not negatively affect its dynamics, despite requiring special infrastructure, which is still precarious. The statements reveal that OT is a practice that starts with the reception of the patient and continues with the observation of medication intake, allowing for bonding between the healthcare professional and the patient. Furthermore, the healthcare professionals see OT as a strategy that makes the BHU more welcoming, since it permits close contact with the patient and involves the healthcare professional and the patient in a relationship of understanding, capture and referral of the needs that emerge from their interaction.

TS was also said to constitute a good opportunity for the patient to share doubts, feelings, problems and needs, allowing the therapeutic focus to be enlarged beyond the medical diagnosis[12]. The healthcare professional may take advantage of this moment as a space to clarify certain points about the disease and to strengthen patients to cope with the health-disease process, encouraging then to exercise their citizenship, i.e. to be aware of their rights[1].

For the healthcare professionals, compliance is not a linear but a complex process, directly related to the bond established between the patient and the professional. On the one hand, the bond should come from the healthcare professional and should be constructed on relationship bases that permit patients to express their feelings and needs. As such, compliance is a process built on everyday activities: it is a consequence of offering medication, orientations, the insertion of the patients in the service, their access to the service every time it is necessary and the availability of a professional that is a reference for healthcare. On the other hand, compliance is threatened when healthcare practices do now allow for flexibilization, in terms of changes in schedules, for example, with strict practices in the process of service production infringing on citizenship and the exercise of freedom as a right.

Healthcare professionals committed with healthcare work and with patients aim to overcome the difficulties presented by the patients and the service, in order to collaborate with the compliance process. Seeing to such necessities demands a broader, humanized view, which extrapolates the biological dimension of the health-disease process[12-15]. The healthcare team should offer support to the patients and their families in the therapeutic process, allowing them to be heard, as well as providing orientation about their illness and medication. Long-term treatment plans, in general, are associated to follow-up difficulties.

Scientific reports showing the multiple factors of abandonment are widely available with respect to chronic-degenerative diseases or transmittable diseases requiring continuous treatment[1]. In order to deal with the problems in the process of compliance, compliance should be interpreted from everyday

elements with relations of interdependence and subordination. As such, compliance, according to the concept supporting the present study, should focus on how the patients interpret their own health-disease process and understand their position in the social process of production and reproduction, which will promote differentiated potentialities in terms of access to the elements that make up life and work. Moreover, it incorporates the understanding that the organization of the healthcare services must be oriented to answer the needs of the patients[1-2].

Attention to patients requires the establishment of a bond, indispensable for effective compliance, and it becomes an opportunity for emancipation. In this process, the patients express their disease, allowing the professionals to get to know how the users conceive the health-disease process and to build strategies that will facilitate compliance. Besides, the healthcare professionals' availability to know the patients' living situation may provide possibilities for coping in the health-disease process, even to the extent of strengthening some patients' social inclusion, since a large part of the subjects live in poor social conditions[2].

In the present study, the importance of having Community Health Agents working in the process of compliance with the treatment was highlighted. They act as facilitators by closely knowing the patients' daily life and showed to be more open to assume new strategies, a type of behavior that differs from other healthcare professionals, historically incorporated in the healthcare team. Such characteristics favor the development of OT[13].

Regarding the incentives given to the patients, according to the healthcare professionals, they help in the compliance process, especially because of the social restrictions present. However, actions and policies should be considered that will make it possible to insert these individuals socially, because these are benefits that, as a group, support the process, but do not change the reality of life[13,16].

Still, in the present study, it is believed that the side effects of the medication also influence compliance. Therefore, it is important for the healthcare professionals to be available to listen to the patients and solve their doubts, if any[16].

In a perspective that enlarges the traditional concept of treatment abandonment, it is said that compliance, in daily healthcare, should consider the individuals' way of life and family dynamics, as well as their beliefs, opinions, knowledge about the disease and treatment[1-2].

FINAL CONSIDERATIONS

The following considerations refer to the reality of the location where the data were collected, with some warning about undue generalizations. The analysis of the statements, based on the Theory of Social Determination of the Health-Disease process, shows how changes are needed in the considerations of processes that make individuals fall sick and die.

The healthcare professionals constituting the study population develop OT from whatever they "think is adequate", since there was no training process. Neither that, nor the operationalization of the strategy was the debate focus in technical meetings. For those professionals, DOTS means staying alert so that the patient will not abandon the treatment. It is reinforced as an effective strategy for compliance, and it enables the creation of bonds between the healthcare professional and the patient. The bond allows the latter to feel welcome, finding a space to solve doubts and "talk" about the therapeutic process.

The operationalization of DOTS demands knowledge about the patients' necessities, so that the treatment can be adjusted and become a part of their lives. However, more than support from the healthcare professional, to make it easier for the patients to comply with the treatment, they need family support, which is facilitated when the healthcare professional can integrate one of the family members in the treatment. The healthcare professionals with the highest degree of involvement in DOTS operationalization were members of the nursing team.

It was also verified that compliance with DOTS is made easier by the presence of incentives, especially due to the instauration of the therapeutic project, when the patient is usually most feeble because of the disease. Lastly, the development of this study permitted the perception that compliance with treatment is directly associated to DOTS in the region of SUVIS Butantã. The healthcare professionals seem to firmly engage in this process, making use of several strategies, having the bond as the basis for treatment compliance. It is reinforced that the strategy supports compliance with the treatment, but that it is not enough when analyzed according to the compliance concept used as a theoretical reference

framework in this study[1-2]. This happens because compliance is related to the subjects' life and work processes. In this perspective, some healthcare professionals defend that it is fundamental to broaden the view of the patients' needs, considering their daily life as an important therapeutic process. Finally, it should be restated that the concept of compliance requires changes in the comprehension of healthcare professionals, going beyond the disease, as well as their involvement with the healthcare work, so that the necessities of the individuals and groups are considered, seeking to understand the processes why people fall ill and die. Therefore, the healthcare professionals need to identify the vulnerabilities of the individuals, families and social groups that are part of the territory, so that they may become the focus of interventions shared with the community and other social sectors.

Tuberculosis should be considered a socially-determined disease, and compliance with the treatment is directly associated to how the patient understands the disease. Therefore, it is necessary to transcend the understanding of the strategy, so that it goes beyond medication intake and considers individuals' ways of life, their family dynamics, beliefs, opinions and knowledge about the disease.

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