

PROFILE OF TUBERCULOSIS CASES AMONG THE POPULATION DEPRIVED OF LIBERTY

PERFIL DOS CASOS DE TUBERCULOSE ENTRE A POPULAÇÃO PRIVADA DE LIBERDADE

PERFIL DE LOS CASOS DE TUBERCULOSIS EM LA POBLACIÓN PRIVADA DE LIBERTAD

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ABSTRACT

Was to describe the profile of tuberculosis cases among the deprived population of Brazilian prisons, from 2014 to 2018, including regional and clinical factors. It carried out an ecological study, with the analysis of the trend in the prevalence of Tuberculosis in the prison population, considering the time frame from 2014 to 2018. Data were obtained from the Information System for Notifiable Diseases. Reflect a worrying panorama of tuberculosis among the population deprived of liberty in the Brazilian context, together with the high prevalence of HIV/aids and the consumption of alcohol and other drugs, comorbidities that affect the diagnosis and treatment of tuberculosis and that there are gaps in the control and monitoring of the disease. And permanent educational actions for the prevention, protection and promotion of their health are necessary, in order to minimize the potential risks of illnesses caused by tuberculosis in Brazilian prisons.

Descriptors: *Prisons; Tuberculosis; HIV.*

RESUMO

Descrever o perfil dos casos de tuberculose entre a população privada de liberdade dos presídios brasileiros, no período de 2014 a 2018, compreendendo fatores regionais e clínicos. Realizou-se um estudo ecológico, com a análise da tendência da prevalência da tuberculose na população prisional, considerando o recorte temporal de 2014 a 2018. Os dados foram obtidos no Sistema de Informação de Agravos de Notificação. Observou-se um panorama preocupante da tuberculose entre a população privada de liberdade no contexto brasileiro, juntamente com a alta prevalência de HIV/aids e consumo de álcool e outras drogas, comorbidades que afetam o diagnóstico e tratamento da tuberculose, bem como a existência de lacunas no controle e acompanhamento da doença. Fazem-se necessárias ações educativas permanentes de prevenção de doenças, proteção e promoção de sua saúde, para que minimizem os riscos potenciais de adoecimentos por tuberculose nos presídios brasileiros.


Descritores: *Prisões; Tuberculose; HIV.*


RESUMEN


Describir el perfil de los casos de tuberculosis entre la población privada de libertad en las cárceles brasileñas, de 2014 a 2018, incluyendo factores regionales y clínicos. Se realizó un estudio ecológico, con el análisis de la tendencia de la prevalencia de Tuberculosis en la población penitenciaria, considerando el marco temporal de 2014 a 2018. Los datos se obtuvieron del Sistema de Información de Enfermedades de Declaración Obligatoria. Reflejan un panorama preocupante de la tuberculosis entre la población privada de libertad en el contexto brasileño, junto a la alta prevalencia de VIH/SIDA y consumo de alcohol y otras drogas, comorbilidades que afectan el diagnóstico y tratamiento de la tuberculosis y que existen brechas en el control y seguimiento de enfermedades. Son necesarias acciones educativas permanentes para la prevención, protección y promoción de su salud, con el fin de minimizar los riesgos potenciales de tuberculosis en las cárceles brasileñas.


Descriptorios: *Prisiones; Tuberculosis; VIH.*

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INTRODUCTION

Pulmonary Tuberculosis (PT) is the world's leading infectious disease, caused by the bacterium *Mycobacterium tuberculosis*. It constitutes a serious health problem, which requires the development of strategies for its control and a look at the humanitarian, economic and public health aspects. Its transmission occurs via the respiratory route, through the inhalation of aerosols produced by coughing, talking or sneezing from a sick person in the active phase. It is a disease mainly related to situations of poverty, social vulnerability and large urban agglomerations^{1,2}.

Within the scope of the Unified Health System (UHS-SUS), when talking about equity, it is essential that health services consider that there are groups with specific problems and different ways of living, getting sick and having opportunities to satisfy the needs of life. In addition, there are conditions that modify the course of the health-illness-care process of some populations, such as the Liberty-Deprived Population (LDP).

When analyzing this process, it is necessary to consider that the LDP experience conditions of vulnerability marked by deprivation and psychosocial issues that generate physical and emotional suffering, which will enable an increase in health risks, compared to other social groups and the population in question. general^{1,2,4}. In this context, PT gains prominence, since this group has a 34 times greater risk of illness when compared to the general population².

However, it is important to look beyond the disease and consider care that is not only aimed at curing, but is broadly conceived, which encourages the development of educational actions, promotes health and prevents injuries, aiming at social reintegration, participation, co-responsibility, increased self-esteem and equal access to health services by the prison population.

Thus, realizing the need evidenced by scientific productions that address PT in LDP to know the real situation of this disease, this study aims to describe the profile of tuberculosis cases among the population deprived of liberty in Brazilian prisons.

METHODS

This is an ecological population-based study, with the analysis of the trend of PT prevalence in the prison population, considering the time frame from 2014 to 2018. The source population was the LDP of the Brazilian regions. Data were collected from the Information System for Diseases and Notification of the Ministry of Health (Sinan), available online and free of charge through the Department of Informatics of the SUS (Datusus) via the Tabnet program's health information.

The study analyzed the prevalence of PT in both sexes, divided by Brazilian region, based on the abandonment rate (number of tuberculosis cases closed due to treatment abandonment, according to year of diagnosis and residents in Brazil/number of tuberculosis notified by year of diagnosis x 100) and presence of comorbidities (HIV/AIDS, drug use). Data were collected in October 2021, using the Excel program for data storage. For data analysis and interpretation, Excel and BioEstat version 5.0 programs were used.

The research complied with Resolution n° 466/2012 of the National Research Ethics Commission (Conep)⁵. And its approval was obtained from the UFJF Research Ethics Committee under Opinion No. 3,784,839, on December 19, 2019, although it is a study using secondary data available on a public domain website.

RESULTS

The data show the prevalence of PT in each region, the proportion of cases of the disease that abandoned treatment and the presence of comorbidities such as HIV/AIDS and the use of alcohol and other drugs. When observing the prevalence of PT in the regions of Brazil, described in Table 1, it can be seen that the Southeast and Northeast regions concentrate the highest numbers of users affected by PT, respectively 53.7% and 19.7% of cases. This increase was continuous and significant, and could be noticed over the years.

Table 1 – Number of confirmed cases of tuberculosis in the population deprived of liberty, reported in the Notifiable Diseases Information System – Brazil, distributed by Year of Diagnosis and Region of Residence.

DIAGNOSTIC YEAR	NORTH	NORTH EAST	SOUTHEAST	SOUTH	MIDWEST	IGNORED/OUTSIDE	TOTAL
2014	88	501	2893	562	151	1	4196
2015	487	1509	4071	1127	448	-	7642
2016	598	1681	4479	1139	553	-	8450
2017	800	2077	5557	1228	678	-	10340
2018	947	2390	5220	1354	833	2	10746
Total	2920	8158	22220	5410	2663	3	41374

Source: SINAN, 2021

Regarding the dropout rate, Table 2 shows that it is such a frequent and significant data in LDP. The Southeast, with 46%, and the South, with 17.8% stand out as the regions with the highest number of reported cases of treatment abandonment.

Table 2 – Number of confirmed cases of tuberculosis in the population deprived of liberty, who abandoned treatment, notified in the Notifiable Diseases Information System – Brazil, distributed by Year of Diagnosis and Region of Residence, considering both genders.

DIAGNOSTIC YEAR	NORTH	NORTH EAST	SOUTHEAST	SOUTH	MIDWEST	TOTAL
2014	17	37	231	109	21	415
2015	77	116	319	160	62	734
2016	96	182	290	140	55	763
2017	109	161	435	114	76	895
2018	76	81	255	70	37	519
Total	375	577	1530	593	251	3326

Source: SINAN, 2021

Regarding the concomitant presence of AIDS and PT in LDP, in Table 3, the South region stands out, with 29.3% of national cases, and the Southeast and Northeast regions, both with 16.8% of cases.

Table 3 – Number of confirmed cases of tuberculosis and AIDS in the population deprived of liberty, notified in the Notifiable Diseases Information System – Brazil, distributed by Diagnosis Year and Region of Residence.

DIAGNOSTIC YEAR	NORTH	NORTH EAST	SOUTHEAST	SOUTH	MIDWEST	TOTAL
2014	5	21	208	92	11	337
2015	49	88	88	196	22	586
2016	23	100	100	158	37	545
2017	37	105	105	158	31	538
2018	45	118	118	149	33	559
Total	159	432	432	753	134	2565

Source: SINAN, 2021

With regard to alcohol consumption, represented in Table 4, it is observed that the Southeast and Northeast regions are the ones with the highest number of cases, corresponding to 41.9% 25.02% of users respectively.

Table 4 – Number of confirmed cases of tuberculosis in the population deprived of liberty and who use alcohol, notified in the Notifiable Diseases Information System – Brazil, distributed by Year of Diagnosis and Region of Residence, considering both genders.

DIAGNOSTIC YEAR	NORTH	NORTH EAST	SOUTHEAST	SOUTH	MIDWEST	TOTAL
2014	13	77	213	51	18	371
2015	67	190	350	135	44	786
2016	98	290	419	150	78	1035
2017	152	364	622	174	156	1468
2018	229	433	668	208	212	1750
Total	559	1354	2272	718	507	5410

Source: SINAN, 2021

Table 5 – Number of confirmed cases of tuberculosis in the population deprived of liberty and who use illicit drugs, notified in the Notifiable Diseases Information System – Brazil, distributed by Year of Diagnosis and Region of Residence, considering both genders.

DIAGNOSTIC YEAR	NORTH	NORTH EAST	SOUTH EAST	SOUTH	MIDWEST	TOTAL
2014	12	51	506	77	23	669
2015	88	260	775	277	64	1464
2016	163	526	927	344	122	2082
2017	261	665	1308	441	267	2942
2018	363	732	1302	511	409	3317
Total	887	2234	4818	1650	885	10474

Source: SINAN, 2021

Data from Table 5 indicate that, once again, the Southeast and Northeast regions are the ones with the highest number of cases of users who use illicit drugs, being represented, respectively, by the percentages 46% and 21.3% of the total number of users.

DISCUSSION

Even though there is a national policy to fight tuberculosis and control the disease and a universal health care network, the data point to regional disparities related to the dropout rate and comorbidities, such as HIV/AIDS and use of licit or illicit drugs.

It is important to highlight that previous studies showed that data from 2013 already expressed the relationship of PT in prison health as a serious public health problem, with 9 million new cases and 1 million deaths⁶. This discussion becomes relevant in prisons, for being a favorable environment for the transmission of the disease, due to confinement and weaknesses in public policies aimed at prevention and diagnosis, as well as the lack of structure or a laboratory in the prison system.

Nowadays, PT remains a growing public health problem in Brazil and in other countries, economically and socially impacting their populations. Although there have been advances in relation to the diagnosis and treatment of PT, it is observed that the current legislation is not able to carry out actions to control and treat

the disease in several places, mainly within the Prison System, with a population that suffers several deprivations and difficulties in accessing health care.

When discussing the prevalence of PT in the LDP in the context of the regions of Brazil, the high prevalence rates are highlighted, relative to the large regions of the country, where there are municipalities with extremely serious situations and communities with precarious living conditions. They are the places, consequently, with the largest Brazilian prisons. These data expose the difficulties in the effectiveness of state and municipal programs for PT control, as well as public policies aimed at vulnerable populations.

It is noteworthy that the LDP, since 2011, is listed as a priority in the National Tuberculosis Control Program (PNCT), which elaborates specific recommendations for the control of the intramural disease^{1,2}. In 2014, the prison system became the focus of the TB Reach project, linked to the Stop PT Partnership of the WHO, which carried out an active search for suspected PT cases in some prison institutions in the country, using the Rapid Molecular Test (TRM), which showed the severity of this disease in the PPL⁷, thus justifying the increase in the number of cases reported from 2014 in the country.

Along with PT, it appears that the presence of HIV/AIDS, a significant public health problem, happens disproportionately in the LDP, evidencing the unfair and discriminatory way that permeates the health care of this population, as well as the lack of guarantee of disease prevention actions, care and treatments during incarceration and, after, at liberty. In this sense, it is recommended that states and municipalities carry out the diagnosis, considering the characteristics of the cases of PT and HIV so that they are aware of the most prevalent vulnerabilities in their territories and, therefore, can adapt strategies to face both diseases⁸.

It should be noted that, according to the PNCT, the HIV test is recommended for all users diagnosed with PT. This measure aims to reduce the mortality rate, since the disease is the main cause of death in people with HIV^{9,10}. According to a study carried out in 2017, the prevalence of PT in seropositive people is around 15%, indicating an increase in PT/HIV co-infection and its complications¹⁰.

Regional realities reinforce that early identification, timely treatment and cure of existing PT cases in the prison system, as well as monitoring and treating HIV/AIDS and understanding the vulnerability that affects this population, are the main measures to interrupt the chain of transmission of these pathologies.

In addition to the presence of these infections, incarceration brings with it histories related to drug use, stigma and prejudice, which significantly affect the treatment of PT, increasing the complications of the disease, the rate of treatment abandonment and multidrug-resistant tuberculosis^{8,11,12}.

These are results that point to a worrying panorama of tuberculosis among the population deprived of freedom, which reveals gaps in the control and monitoring of the disease in this population, especially when related to the context of overcrowding and precariousness of Brazilian prisons.

CONCLUSÃO

Reading the data portrays the need for permanent educational actions, aimed at health promotion, disease prevention and life protection, which will minimize the potential risks of illness in these spaces in a more vulnerable situation.

However, when speaking of the elaboration and adherence of public policies, it is worth discussing their importance, especially so that they promote equality of rights and duties, free the population from oppression and ensure social well-being and the right to citizenship.

This study has the potential to develop a reflective and critical analysis aimed at health and public safety professionals and managers on comprehensive and equitable assistance to the population deprived of liberty, as well as the dissemination of information and knowledge to combat PT and the specific care for this group.

As a limitation, we highlight the use of secondary data from the Tabnet, which are possibly affected by underreporting and failures in filling in information and epidemiological variables, important to the health-disease process and to the characterization of this population group.

Finally, it is essential to take a look at the mode of care offered to users with PT and the expansion of the field of practice of health and social assistance professionals, with regard to prevention, early diagnosis, treatment and control of PT among the Population Deprived of Liberty.

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