

DETERMINANTES DO ABANDONO DO TRATAMENTO DA TUBERCULOSE NA ATENÇÃO PRIMÁRIA À SAÚDE: EVIDÊNCIAS DO NORDESTE BRASILEIRO

DETERMINANTS OF TUBERCULOSIS TREATMENT ABANDONMENT IN PRIMARY HEALTH CARE: EVIDENCE FROM NORTHEAST BRAZIL

DETERMINANTES DEL ABANDONO DEL TRATAMIENTO DE LA TUBERCULOSIS EN LA ATENCIÓN PRIMARIA DE SALUD: EVIDENCIAS DEL NORDESTE BRASILEÑO

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RESUMO: A tuberculose permanece como importante problema de saúde pública, e o abandono do tratamento constitui um dos principais desafios para o controle da doença. Este estudo objetivou analisar os fatores associados ao abandono do tratamento da tuberculose no Nordeste brasileiro e discutir suas implicações para a Atenção Primária à Saúde. Trata-se de uma revisão narrativa da literatura, realizada nas bases BVS, SciELO e PubMed, considerando estudos publicados entre 2015 e 2025. As evidências foram organizadas em três dimensões: fatores socioeconômicos e territoriais; fatores clínicos e comportamentais; e aspectos relacionados à organização dos serviços de saúde. Os achados demonstraram associação do abandono com vulnerabilidades socioeconômicas, desigualdades territoriais, consumo de álcool, histórico prévio de abandono, recorrência da doença, coinfeção TB/HIV e dificuldades no acompanhamento clínico e assistencial. Também foram identificadas diferenças importantes entre estados, municípios e grupos populacionais. Conclui-se que o abandono é um fenômeno multifatorial, demandando estratégias territorializadas, acompanhamento longitudinal, busca ativa, fortalecimento do vínculo e integração entre vigilância epidemiológica e Atenção Primária à Saúde.

Palavras-chave: Tuberculose. Abandono do Tratamento. Atenção Primária à Saúde. Determinantes Sociais da Saúde.

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ABSTRACT: Tuberculosis remains an important public health problem, and treatment loss to follow-up represents one of the main challenges to disease control. This study aimed to analyze factors associated with tuberculosis treatment abandonment in Northeastern Brazil and discuss their implications for Primary Health Care. This narrative literature review was conducted using the Virtual Health Library, SciELO, and PubMed databases and included studies published between 2015 and 2025. The evidence was organized into three dimensions: socioeconomic and territorial factors; clinical and behavioral factors; and aspects related to the organization of health services. The findings showed associations between treatment abandonment and socioeconomic vulnerabilities, territorial inequalities, alcohol use, previous treatment abandonment, disease recurrence, TB/HIV coinfection, and difficulties in clinical and healthcare follow-up. Important differences were also identified across states, municipalities, and population groups. Treatment abandonment is therefore a multifactorial phenomenon requiring territory-based strategies, longitudinal follow-up, active outreach, strengthened patient–healthcare team relationships, and integration between epidemiological surveillance and Primary Health Care.

Keywords: Tuberculosis. Treatment Abandonment. Primary Health Care. Social Determinants of Health.

RESUMEN: La tuberculosis continúa siendo un importante problema de salud pública, y el abandono del tratamiento constituye uno de los principales desafíos para el control de la enfermedad. Este estudio tuvo como objetivo analizar los factores asociados al abandono del tratamiento de la tuberculosis en el Nordeste de Brasil y discutir sus implicaciones para la Atención Primaria de Salud. Se realizó una revisión narrativa de la literatura en las bases BVS, SciELO y PubMed, considerando estudios publicados entre 2015 y 2025. Las evidencias se organizaron en tres dimensiones: factores socioeconómicos y territoriales; factores clínicos y conductuales; y aspectos relacionados con la organización de los servicios de salud. Los hallazgos mostraron asociaciones entre el abandono y vulnerabilidades socioeconómicas, desigualdades territoriales, consumo de alcohol, antecedentes de abandono, recurrencia de la enfermedad, coinfección TB/VIH y dificultades en el seguimiento clínico y asistencial. También se identificaron diferencias entre estados, municipios y grupos poblacionales. Se concluye que el abandono es un fenómeno multifactorial que requiere estrategias territorializadas, seguimiento longitudinal, búsqueda activa, fortalecimiento del vínculo e integración entre vigilancia epidemiológica y Atención Primaria de Salud.

Palabras clave: Tuberculosis. Abandono del Tratamiento. Atención Primaria de Salud. Determinantes Sociales de la Salud.

INTRODUCTION

Tuberculosis (TB) remains a major public health problem, characterized by persistent transmission, ongoing occurrence of cases, and challenges related to the diagnosis, treatment, and follow-up of affected individuals. Although effective treatment is available, treatment adherence remains one of the main challenges to disease control, particularly when considering the diversity of social, clinical, and territorial conditions across Brazil. The different

epidemiological realities observed throughout the country highlight the need to understand tuberculosis in light of the specific characteristics of the territories and populations affected (Cortez et al., 2021).

Tuberculosis treatment requires continuous monitoring, as its effectiveness depends on maintaining therapy for the recommended duration. In this context, treatment abandonment represents a major unfavorable outcome, as it is associated with the interruption of care and difficulties in achieving the expected therapeutic results. In Brazil, epidemiological studies have demonstrated that this phenomenon is unevenly distributed across regions, states, and municipalities, revealing distinct temporal and spatial patterns of occurrence (Sousa et al., 2019; Soeiro et al., 2022).

In the Northeast region of Brazil, studies conducted in different states have demonstrated variations in the occurrence of treatment abandonment and identified factors associated with the sociodemographic, clinical, and behavioral characteristics of individuals undergoing treatment. In Fortaleza, for example, characteristics related to the spatial distribution of tuberculosis and treatment abandonment have been identified, highlighting the influence of socioeconomic and territorial conditions on the epidemiological dynamics of the disease (Harling et al., 2017). In Ceará, a study involving 74,006 tuberculosis cases identified a treatment abandonment prevalence of 12.54%, as well as associations between this outcome and characteristics such as urban residence, re-entry into treatment after previous abandonment, disease recurrence, and alcohol consumption. These findings demonstrate that treatment interruption occurs within a context involving various individual characteristics and factors related to the continuum of care (Sousa et al., 2021).

Among the clinical conditions requiring particular attention, tuberculosis/HIV coinfection stands out. A study conducted among incarcerated individuals in Paraíba identified associations between treatment abandonment, AIDS, positive HIV serological status, and the absence of follow-up sputum smear microscopy. These findings reinforce the importance of clinical and laboratory monitoring throughout treatment, particularly among individuals with comorbidities (Alves et al., 2020).

In addition to individual and clinical characteristics, treatment continuity is also associated with the follow-up provided by healthcare services. Primary health care plays a significant role in this process, particularly because of its territorial integration and its capacity to provide longitudinal care for individuals with tuberculosis. Identifying patients undergoing

treatment, ensuring systematic follow-up, and implementing strategies aimed at maintaining continuity of care are essential components of disease control (Harling et al., 2017).

The COVID-19 pandemic introduced additional challenges to tuberculosis management, leading to changes in disease-related indicators and the organization and functioning of healthcare services. Analyses conducted in Brazil identified changes in tuberculosis epidemiological indicators during the pandemic, highlighting the need to consider this context when interpreting disease trends and treatment outcomes (Berra et al., 2022).

Given this scenario, it is important to synthesize and analyze the available evidence on factors associated with tuberculosis treatment abandonment, particularly considering the specific characteristics of Northeast Brazil. Understanding these factors may contribute to identifying populations and contexts at greater risk of vulnerability and strengthening interventions implemented within primary health care.

Therefore, the present study aimed to analyze the factors associated with tuberculosis treatment abandonment in primary health care, with an emphasis on evidence from Northeast Brazil.

METHODOLOGY

This study is characterized as a narrative literature review, an approach that allows the integration of findings from different methodological designs and the discussion of the phenomenon under investigation from multiple perspectives.

The literature search was conducted in the Virtual Health Library (VHL), Scientific Electronic Library Online (SciELO), and PubMed databases. Search terms in Portuguese and English related to tuberculosis, treatment abandonment, treatment adherence, primary health care, social determinants of health, and Northeast Brazil were selected and combined using the Boolean operators AND and OR.

Articles published between 2015 and 2025 addressing factors associated with tuberculosis treatment abandonment, particularly in the Brazilian context and Northeast Brazil, were considered. Epidemiological, observational, and ecological studies, temporal and spatial analyses, and investigations aimed at identifying sociodemographic, clinical, behavioral, and health service organization-related factors were included. Duplicate studies, publications not directly related to treatment abandonment or continuity of care, and studies whose content did not provide relevant information regarding the subject under investigation were excluded.

The selection process involved screening titles and abstracts, followed by an analysis of studies considered relevant. Information was organized according to authorship, year of publication, study location, study design, population investigated, and main findings related to treatment abandonment. The analysis was conducted using a descriptive and interpretative approach, allowing the identification of convergences, divergences, and territorial specificities. The findings were grouped into three dimensions: socioeconomic and territorial factors; clinical and behavioral factors; and factors related to the organization of healthcare services.

3 RESULTS AND DISCUSSION

The studies analyzed demonstrate that tuberculosis treatment abandonment is a multifactorial phenomenon associated with the interaction of socioeconomic and territorial conditions, clinical and behavioral characteristics, and factors related to the organization and follow-up provided by healthcare services. The evidence also indicates substantial differences across regions, states, municipalities, and population groups, reinforcing the need to interpret treatment abandonment within the contexts in which treatment is provided.

3.1 Socioeconomic and Territorial Factors Associated with Treatment Abandonment

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The distribution of tuberculosis treatment abandonment exhibits considerable territorial heterogeneity in Brazil. Soeiro, Caldas, and Ferreira (2022), analyzing new tuberculosis cases reported between 2012 and 2018, identified a stable trend in the proportion of treatment abandonment nationwide, whereas the North, Northeast, and South regions exhibited decreasing trends. Specifically, in Northeast Brazil, the mean proportion of treatment abandonment during the study period was 9.76%, with a trend variation of -4.36% . Among northeastern states, Pernambuco, Alagoas, and Sergipe exhibited decreasing trends, whereas Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, and Bahia maintained stable patterns. These findings demonstrate that the overall regional trend should not be interpreted as reflecting a uniform pattern across all states (Soeiro; Caldas; Ferreira, 2022).

Territorial heterogeneity is also evident at smaller geographical scales. Miranda et al. (2025), in a spatial analysis of tuberculosis treatment abandonment across municipalities in Pernambuco between 2011 and 2020, identified 7,775 records of treatment abandonment, distributed similarly between the two five-year periods evaluated. The mean rates were 6.7% between 2011 and 2015 and 6.6% between 2016 and 2020. Spatial analysis identified clusters of

municipalities exhibiting a high-high pattern, predominantly located in the Recife Metropolitan Region and in areas characterized by greater social vulnerability and a high burden of tuberculosis.

These findings have important implications for Primary Health Care (PHC). Aggregated indicators at the state or municipal level may conceal areas, neighborhoods, or population groups in which treatment abandonment is disproportionately concentrated. Therefore, territorial analysis may contribute to identifying priority areas and guide the implementation of strategies such as active case finding, home-based follow-up, and intensified care. However, because this evidence derives from ecological studies, associations identified at the territorial level should not automatically be extrapolated to individuals.

Similar findings were observed in Fortaleza. Harling et al. (2017) identified a concentration of tuberculosis cases in socioeconomically disadvantaged areas and a higher risk of treatment abandonment among individuals experiencing less favorable socioeconomic conditions. During the study period, 1,901 of the 12,338 cases analyzed resulted in treatment abandonment, corresponding to 15.4%, and the frequency of this outcome increased throughout the study period. These findings reinforce the relationship between socioeconomic context, territory, and treatment continuity, although they do not establish direct causality attributable to territorial characteristics alone (Harling et al., 2017).

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The relevance of territorial differences is also demonstrated by temporal analyses. Sousa et al. (2019), investigating patterns of tuberculosis cure, mortality, and treatment abandonment in Brazilian state capitals, observed an average annual increase of 12.8% in the treatment abandonment rate in Fortaleza, whereas some other capitals exhibited different trends. This finding demonstrates that regional or national trends may coexist with worsening indicators in specific local contexts, reinforcing the importance of analyses at smaller geographical scales for intervention planning.

In Ceará, Sousa et al. (2021) identified a higher prevalence of treatment abandonment among urban residents, with a prevalence ratio (PR) of 2.45 (95% CI: 2.20–2.74) compared with rural residents. This finding demonstrates that territorial vulnerability should not automatically be associated with rural residence or geographical distance from healthcare services. Urban environments may also concentrate conditions that hinder treatment continuity, including socioeconomic inequalities, inadequate housing, daily mobility

challenges, and difficulties reconciling therapeutic follow-up with employment and family responsibilities (Sousa et al., 2021).

Educational attainment should also be interpreted within this broader framework of determinants, avoiding the attribution of treatment abandonment to an individual's presumed inability to understand treatment. Lower educational attainment may serve as a marker of broader social inequalities related to income, employment, housing conditions, access to information, and the practical ability to organize daily routines around treatment requirements. Thus, factors classified as individual characteristics frequently reflect more complex social and territorial conditions.

3.2 Clinical and Behavioral Factors Associated with Treatment Abandonment

Among behavioral factors, alcohol consumption consistently shows an association with treatment abandonment. In a cross-sectional study analyzing 74,006 tuberculosis cases reported in Ceará between 2001 and 2017, Sousa et al. (2021) identified a treatment abandonment prevalence of 12.54%. Individuals with reported alcohol consumption exhibited a higher prevalence of this outcome, with a PR of 1.50 (95% CI: 1.42–1.58). Higher prevalence was also observed among urban residents, individuals classified as re-entry after previous treatment abandonment, and relapse cases.

However, the association between alcohol consumption and treatment abandonment should not be interpreted in isolation or as a causal relationship. Alcohol consumption may coexist with economic vulnerability, instability in social and family relationships, disruptions to daily routines, and difficulties attending healthcare services regularly. From this perspective, interventions limited to advising patients not to abandon treatment are likely to be insufficient unless accompanied by the identification of the practical barriers they face.

A history of previous treatment abandonment represents another relevant marker. In the study conducted by Sousa et al. (2021), individuals classified as re-entry after treatment abandonment exhibited a PR of 2.84 (95% CI: 2.68–3.01), whereas relapse cases presented a PR of 1.22 (95% CI: 1.10–1.35). These findings have important implications for healthcare organization, as the return of an individual who previously interrupted treatment may indicate a need for more intensive and individualized follow-up.

In this context, previous treatment abandonment should not be interpreted merely as retrospective information documented in medical records but rather as a useful indicator for

stratifying follow-up care. Re-entry into treatment represents an opportunity to investigate the reasons for the previous interruption, identify persistent barriers, and develop strategies that may promote greater treatment continuity.

TB/HIV coinfection and other conditions associated with greater clinical complexity also require attention. Alves et al. (2020), in a study involving 614 incarcerated individuals with tuberculosis in Paraíba, observed associations between treatment outcomes and AIDS, HIV serological status, and the absence of follow-up sputum smear microscopy in the bivariate analysis. However, after multivariate adjustment, only the presence of AIDS (RR = 1.998; 95% CI: 1.078–3.704) and the absence of follow-up sputum smear microscopy (RR = 5.251; 95% CI: 2.158–12.583) remained significantly associated with treatment abandonment. This distinction between bivariate and multivariate results is important to avoid interpreting all initially associated variables as having maintained independent associations with the outcome.

Although conducted in a specific population, this study highlights the need to consider clinical complexity when planning follow-up care. Individuals with TB/HIV coinfection may require simultaneous management of different conditions, multiple medications, laboratory examinations, and coordination among different levels of the healthcare network. Fragmentation of care may increase difficulties in maintaining treatment continuity.

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The association between the absence of follow-up sputum smear microscopy and treatment abandonment should also be interpreted cautiously. The observational study design does not allow the conclusion that failure to perform the examination directly causes treatment interruption. Rather, it may represent a marker of reduced interaction with healthcare services or difficulties in maintaining follow-up. Nevertheless, the magnitude of the association observed by Alves et al. (2020) highlights the importance of continuous clinical and laboratory monitoring throughout treatment.

3.3 Healthcare Service Organization and Implications for Primary Health Care

The studies analyzed indicate that treatment continuity does not depend exclusively on patient characteristics. Healthcare service organization, the capacity to provide longitudinal follow-up, early identification of treatment interruptions, and the development of therapeutic relationships also contribute to the set of factors associated with treatment abandonment.

Harling et al. (2017) demonstrated that directly observed treatment (DOT) was associated with different outcomes depending on its actual implementation. Among

individuals who completed the proposed follow-up, the strategy showed a favorable association with treatment outcomes. Conversely, among those for whom DOT had been recommended but who did not complete it, an association with treatment abandonment was observed. These findings indicate that simply recommending a follow-up strategy does not guarantee its effectiveness and that the practical conditions necessary for its implementation in patients' daily lives must be considered.

The effectiveness of DOT and other follow-up strategies depends on factors such as healthcare team availability and organization, accessibility of services, transportation conditions, flexibility in follow-up arrangements, and the development of therapeutic relationships. Therefore, standardized strategies may have limited effectiveness when they are not adapted to individual needs and territorial characteristics.

In this context, Primary Health Care occupies a strategic position because of its proximity to communities and its capacity to provide longitudinal care. Identifying missed appointments, irregular medication collection, or interruptions in laboratory monitoring should trigger an organized response from the healthcare team, aimed at understanding the reasons for difficulties in maintaining treatment before abandonment is formally established. Therefore, active outreach should be understood not merely as locating patients who have missed appointments but also as an opportunity to reestablish continuity of care and identify emerging healthcare needs.

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The COVID-19 pandemic further highlighted the importance of healthcare service organization in interpreting tuberculosis indicators. Berra et al. (2022), analyzing time series from 2010 to 2021, identified disruptions in tuberculosis notification patterns and treatment outcomes following the onset of the pandemic. In Northeast Brazil, the post-intervention period was characterized by decreasing monthly trends in cure, treatment abandonment, and mortality rates, including a 3.15% monthly reduction in the treatment abandonment rate. However, this finding should not be interpreted in isolation as an improvement in tuberculosis control, since the pandemic also affected healthcare access, diagnosis, notification, and patient follow-up.

Reductions in epidemiological indicators during a public health crisis may result from actual changes in disease patterns or alterations in the healthcare system's ability to identify, monitor, and document cases. In the context of treatment abandonment, this issue is particularly relevant because outcome classification depends on longitudinal patient follow-up.

Thus, loss of contact with patients and barriers to accessing healthcare services may affect both treatment continuity and the quality of epidemiological reporting.

This limitation should also be considered in other studies based on secondary data from the Brazilian Notifiable Diseases Information System (Sistema de Informação de Agravos de Notificação – SINAN). Incomplete records, inconsistencies in data entry, and underreporting may affect the resulting estimates. Furthermore, ecological and spatial studies enable the identification of population-level and territorial patterns but do not support causal inferences at the individual level. Miranda et al. (2025), for example, acknowledged limitations associated with the use of secondary data in their analysis conducted in Pernambuco.

Taken together, the evidence demonstrates that the central question should not be limited to identifying who abandons treatment, but should also address the territories in which treatment interruption occurs, the underlying social and clinical conditions, and the healthcare settings in which it takes place. Differences among northeastern states, the spatial concentration observed in specific municipalities, higher prevalence among particular population groups, and the influence of healthcare follow-up indicate the need for territorially tailored strategies proportionate to identified vulnerabilities.

From this perspective, epidemiological surveillance can move beyond its role of documenting treatment abandonment after it occurs and become an instrument for prevention. Integrating epidemiological data with clinical and territorial information may assist Primary Health Care teams in the early identification of individuals and areas requiring more intensive follow-up, supporting interventions based on active outreach, longitudinal care, coordination across healthcare services, and recognition of the social conditions influencing treatment continuity.

3.4 Theoretical and Practical Implications

The findings of this review reinforce the understanding of tuberculosis treatment abandonment as a multidimensional phenomenon that cannot be explained exclusively by individual or behavioral characteristics. The evidence analyzed demonstrates the interaction between socioeconomic and territorial determinants, clinical conditions, treatment history, and factors related to the organization of healthcare services. This perspective broadens the interpretation of treatment abandonment by shifting the focus from an approach centered

solely on individual responsibility toward a model that considers the actual conditions under which treatment is provided.

From a theoretical perspective, the findings support the importance of interpreting treatment abandonment through different levels of determination. Factors such as educational attainment, socioeconomic conditions, alcohol consumption, and residence in specific territories should not be understood in isolation but rather as elements that may reflect broader situations of vulnerability. Similarly, clinical conditions, such as TB/HIV coinfection, and a history of previous treatment abandonment may interact with difficulties related to healthcare access, follow-up, and continuity of care. Thus, treatment abandonment can be understood as the result of interactions among individual characteristics, social conditions, and the capacity of healthcare services to respond to patients' needs throughout treatment.

From a practical perspective, the findings have important implications for Primary Health Care (PHC). Identifying factors associated with treatment abandonment may support the development of vulnerability stratification strategies, allowing individuals with a history of treatment abandonment, greater clinical complexity, alcohol consumption, or other associated conditions to receive more intensive follow-up from the beginning or upon resumption of treatment. In particular, re-entry into treatment following previous abandonment should be regarded as an opportunity to investigate the reasons contributing to the previous interruption and reorganize the care plan according to the needs identified.

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The territorial dimension also has important practical applications. Differences between states, municipalities, and areas within the same territory indicate that aggregated indicators may conceal locations with a higher concentration of treatment abandonment. Coordination between epidemiological surveillance and Primary Health Care may contribute to identifying priority areas and targeting interventions such as active case finding, home-based follow-up, flexible monitoring arrangements, and strengthening relationships between patients and healthcare teams. In this context, epidemiological data may move beyond a purely descriptive function and become tools for planning preventive healthcare interventions.

Furthermore, findings related to directly observed treatment reinforce that the implementation of a healthcare strategy cannot be assessed solely on the basis of its formal recommendation. Its effectiveness depends on practical conditions, including healthcare team availability, accessibility, patients' ability to travel to healthcare facilities, flexibility in follow-up arrangements, and the development of therapeutic relationships. Therefore, interventions

aimed at preventing treatment abandonment should be adapted to the clinical, social, and territorial characteristics of each population, avoiding standardized approaches across different contexts.

3.5 Study Limitations

This study has limitations that should be considered when interpreting its findings. The first limitation arises from the study design itself. As a narrative literature review, the selection and synthesis of evidence do not necessarily follow all procedures employed in systematic reviews, such as prior protocol registration, standardized risk-of-bias assessment, and meta-analysis of results. Although this design allows the integration of studies with different methodologies and contexts, it carries a greater potential for bias in the selection and interpretation of the included publications.

Another limitation concerns the heterogeneity of the studies analyzed. Investigations involving different study designs, populations, periods, territorial units, and measures of association were considered. Studies involving incarcerated populations, ecological analyses, spatial investigations, time-series analyses, and research conducted among the general population have distinct objectives and units of analysis, limiting direct comparisons between their findings. Therefore, the results should be interpreted as complementary evidence addressing different dimensions of treatment abandonment rather than as directly equivalent estimates.

The predominant use of secondary data in some of the included studies, particularly those based on the Brazilian Notifiable Diseases Information System (Sistema de Informação de Agravos de Notificação – SINAN), should also be considered. These data may be affected by incomplete records, inconsistencies in data entry, and underreporting, which can influence prevalence estimates and observed associations. Furthermore, ecological and spatial studies allow the identification of population-level and territorial patterns but do not support the direct attribution of associations observed at the aggregate level to individual patients.

Another relevant consideration is that most of the studies analyzed were observational in nature. Consequently, the associations identified between treatment abandonment and factors such as alcohol consumption, socioeconomic conditions, urban residence, coinfection, or the absence of laboratory follow-up should not automatically be interpreted as causal

relationships. Temporality and interactions among different determinants cannot always be established from the study designs employed.

Additionally, although this review emphasized evidence produced in Northeast Brazil, the availability of studies was not uniform across the states and territories of the region. A substantial proportion of the evidence was concentrated in Ceará, Fortaleza, Pernambuco, and Paraíba, limiting the generalizability of the findings to the entire Northeast region. The regional heterogeneity observed within the studies themselves further reinforces the need for caution when making generalizations.

Finally, although the quantitative studies analyzed allow the identification of associated factors and epidemiological patterns, they have limited capacity to explore the subjective experiences, perceptions, and barriers encountered by individuals during treatment. Future research combining epidemiological and qualitative approaches may contribute to understanding not only which factors are associated with treatment abandonment, but also how and why these factors interfere with continuity of care, while evaluating the effectiveness of strategies implemented by healthcare services to prevent treatment interruption.

4 FINAL CONSIDERATIONS

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The findings of this review demonstrate that tuberculosis treatment abandonment in Northeast Brazil is a multifactorial phenomenon associated with the interaction of socioeconomic and territorial determinants, clinical and behavioral conditions, and factors related to the organization of healthcare services. The differences observed across states, municipalities, and population groups indicate that treatment abandonment does not occur uniformly and reinforce the need to consider the specific characteristics of territories and populations when planning tuberculosis control interventions.

In this context, the evidence analyzed has important implications for Primary Health Care (PHC). Identifying individuals with a history of previous treatment abandonment, greater clinical complexity, alcohol consumption, and other conditions of vulnerability may support the development of differentiated follow-up strategies. Similarly, integrating epidemiological surveillance with primary health care may facilitate the early identification of territories and population groups at greater risk of treatment interruption, enabling the intensification of active case finding, longitudinal follow-up, shared care, and the strengthening of therapeutic relationships between patients and healthcare teams.

Therefore, addressing treatment abandonment requires moving beyond approaches focused exclusively on individual responsibility and recognizing that treatment continuity also depends on the social, territorial, clinical, and healthcare-related conditions under which treatment is provided. Despite limitations related to study heterogeneity and the predominance of observational analyses and secondary data, the evidence gathered reinforces the importance of territorially tailored, continuous, and patient-centered strategies. Further studies integrating quantitative and qualitative approaches are also recommended to deepen the understanding of barriers to treatment continuity and evaluate the effectiveness of interventions implemented by healthcare services.

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