BELIEFS, SOCIAL PERCEPTIONS, AND NON-ADHERENCE TO TUBERCULOSIS TREATMENT AT THE DABOU TUBERCULOSIS CENTER (IVORY COAST)

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ABSTRACT

Tuberculosis remains a major public health problem, particularly in low- and middle-income countries. In Côte d'Ivoire, despite the availability of free treatment at the Dabou Tuberculosis Center, cases of treatment non-adherence persist. This study aims to analyze the role of beliefs and social perceptions in tuberculosis treatment non-adherence. This is a qualitative study conducted among 28 patients with treatment non-adherence, 8 family members, and 6 healthcare professionals. Data were collected through semi-structured interviews, direct observation, and literature review, and then analyzed using a thematic approach. The results highlight three main forms of non-adherence: patients lost to follow-up, resumption of treatment, and treatment failure. Beliefs in a mystical or supernatural origin of the disease, the perception of tuberculosis as shameful and stigmatizing, as well as the expectation of a quick recovery or the use of alternative treatments, strongly influence treatment behaviors. The long duration of treatment is also a factor contributing to treatment discontinuation. These behaviors are socially constructed and informed by Moscovici's theory of social representations (1961), which demonstrates that collective meanings directly influence treatment adherence. The study highlights the importance of considering cultural and symbolic dimensions in understanding treatment behaviors.

Keywords: beliefs, social representations, treatment non-adherence, tuberculosis, Ivory Coast.

INTRODUCTION

Tuberculosis remains a major global public health problem. Declared a “global emergency” by the World Health Organization in 1995, this infectious disease remains one of the leading causes of death, despite the availability of effective treatments. In 2022, the WHO estimated 10.6 million new cases and 1.3 million deaths related to the disease, with a particularly high burden in low- and middle-income countries, especially in sub-Saharan Africa (WHO, 2022). In Côte d’Ivoire, the fight against tuberculosis is organized around the National Tuberculosis Control Program (PNLT), which ensures that diagnosis and treatment are provided free of charge, in accordance with the DOTS[1] strategy. In 2022, the national incidence was estimated at 77 cases per 100,000 inhabitants, with a treatment success rate of 89%, reflecting significant progress in the organization of care (PNLT, 2022). However, behind these overall results lie more mixed local realities. In the Abidjan 1- Grands Ponts health region, the Dabou health district reported 264 cases of tuberculosis in 2018 (RASS[2], 2018). At the Dabou Tuberculosis Center (CAT), 165 new cases were recorded in 2024 and 202 in 2025. However, despite the availability of free treatment, CAT data indicate that cases of treatment non-adherence persist. In fact, 16 cases of non-adherence were recorded in 2024, and 15 cases in 2025 (Dabou CAT Activity Report, 2025).

Although the biomedical and organizational conditions for treatment are in place (free of charge, accessible, institutional follow-up), patients continue to discontinue their treatment, resume it late, or fail to respond to treatment.

This disconnect between the availability of care and treatment adherence highlights the limitations of a strictly biomedical understanding of adherence. Indeed, treatment adherence is not solely a matter of drug availability or access to health services, but is also shaped by social, cultural, and symbolic factors.

[1] Directly Observed Short-Course Treatment
[2] Annual Report on the Health Situation

From this perspective, tuberculosis cannot be viewed solely as a biological condition. Rather, it is also a social phenomenon, imbued with meanings, beliefs, and perceptions that shape patients' attitudes toward treatment.

This leads us to ask the following question: How do social beliefs and perceptions influence treatment non-adherence among patients treated at the Dabou Tuberculosis Center? The overall objective of this study is to analyze the influence of beliefs and social perceptions on treatment non-adherence among patients treated at the Dabou Tuberculosis Center.

Specifically, the study aims to:

- describe the forms of treatment non-adherence observed among tuberculosis patients treated at the Dabou CAT;
- analyze patients' beliefs and perceptions regarding tuberculosis;
- examine patients' social perceptions of treatment and their behavior in relation to the course of treatment.

This study is based on the following hypothesis: treatment non-adherence among patients treated at the Dabou Tuberculosis Center is influenced by their beliefs and perceptions regarding tuberculosis.

1- MATERIALS AND METHODS

1.1. Study Setting

This study was conducted at the Tuberculosis Center (CAT) in Dabou, located in the Grands-Ponts region in southern Côte d'Ivoire, approximately 49 km from Abidjan. This facility serves as the primary center for screening, monitoring, and treating tuberculosis patients in the Dabou department. This site was selected due to the high incidence of treatment non-adherence and the diverse sociocultural backgrounds of the patients treated there.

1.2. Study Design and Methodological Approach

This is a qualitative study with a comprehensive and interpretive focus, grounded in the sociology of health. It aims to analyze the social beliefs and perceptions associated with tuberculosis and to understand how these influence non-adherence to treatment.

The qualitative approach was chosen to capture the social, symbolic, and cultural logics that shape patients' attitudes toward anti-tuberculosis treatment.

1.3. Study Population

The study population consists of three categories of individuals involved in the experience of the disease and treatment:

- tuberculosis patients who are non-adherent to treatment (those lost to follow-up, those who have resumed treatment, and treatment failures);
- family members or caregivers of patients;
- healthcare professionals involved in patient care at the Dabou CAT.

1.4. Sampling and Sample Size

Purposive sampling was used in this study to select participants with specific characteristics directly related to the research objective. This technique involves deliberately selecting individuals deemed relevant to provide rich and in-depth information on the phenomenon under study, in this case, treatment non-adherence in tuberculosis.

The sample consists of 42 participants, distributed as follows:

- 28 tuberculosis patients who were non-adherent to their treatment,
- 8 family members of patients;
- 6 healthcare workers involved in patient care at the Dabou CAT (1 physician, 1 nurse specialist, 2 nurses, and 2 community health workers).

Patients were identified using the CAT's follow-up records covering the period from January 2024 to December 2025.

1.5. Data Collection Techniques and Tools

Data collection relied on methodological triangulation using three main techniques:

1.5.1. Literature Review

The review focused on institutional documents (WHO, National Tuberculosis Control Program) as well as scientific studies on treatment adherence and social perceptions of tuberculosis.

1.5.2. Non-participant direct observation

This was conducted at the Dabou CAT using an observation grid designed to capture:

- reception and care conditions;
- interactions between patients and caregivers;
- social practices surrounding treatment.

1.5.3. Semi-structured interviews

Individual interviews were conducted using interview guides tailored to each category of participants.

They focused in particular on:

- beliefs related to tuberculosis;
- perceptions of the disease and treatment;
- personal experiences with treatment;
- sociocultural factors influencing treatment adherence.

The interviews were recorded with the participants' consent and then transcribed in full.

1.6. Data Analysis Method

The data underwent a thematic content analysis, drawing on the work of Bardin (2013).

The analysis process consisted of:

- a cursory reading of the verbatim transcripts;
- thematic coding;
- grouping into analytical categories.

The analysis was structured around three main themes related to the study's objective:

- patterns of treatment non-adherence observed among tuberculosis patients treated at the Dabou Tuberculosis Center;
- patients' beliefs and social perceptions regarding tuberculosis;
- patients' social perceptions of treatment and their behavior throughout the course of treatment.

The most significant verbatim quotes were selected to illustrate the results.

1.7. Ethical Considerations

The study adhered to the ethical principles of social science and health research:

- clear information provided to participants regarding the study's objectives;
- free and informed consent;
- anonymity and confidentiality of the data collected;
- respect for the dignity and sensitivity of the respondents.

1.8. Limitations of the Study

The small sample size, which is characteristic of a qualitative approach, limits the generalizability of the results. The social sensitivity surrounding tuberculosis may have restricted participants' freedom of speech and introduced reporting biases. Furthermore, certain language barriers required rephrasing, which may have partially altered the meaning of the comments collected. The limited availability of certain health workers also restricted access to certain perspectives. However, the diversity of profiles and the triangulation of data collection methods strengthen the credibility of the results.

2- RESULTS

2.1. Forms of treatment non-adherence observed among tuberculosis patients

An analysis of the treatment trajectories of patients followed at the Dabou Tuberculosis Center highlights three main forms of treatment non-adherence: patients lost to follow-up, patients who

resumed treatment, and treatment failures. These forms reflect distinct social dynamics of engagement with and disengagement from treatment.

Tableau 1 *: Répartition des formes d'inobservance*

Types of non-adherence	**Number of patients, 2024–2025**
Lost to follow-up	**6**
Treatment resumptions	**13**
Treatment failures	**12**
Total	**31**

2.1.1. Patients Lost to Follow-Up

Patients classified as lost to follow-up are characterized by a prolonged interruption in treatment and withdrawal from the healthcare system. This discontinuation is often linked to financial constraints, relocation, or negative perceptions of the disease.

> "*I stopped coming because I didn't have any money left for transportation and I was feeling a little better, so I stopped comi*ng," (Patient 7, 31 years old, male, lost to follow-up for 5 months)

2.1.2. Patients Resuming Treatment

Patients resuming treatment have treatment histories marked by temporary interruptions followed by a return to care. Their attitude toward treatment is ambivalent, oscillating between recognizing the need for treatment and the constraints of daily life.

> *"I had started treatment, but the medications were too strong; they made me tired. I stopped for a while and then came back*." (Patient 11, 28 years old, female, interrupted treatment for 1 month)

From the healthcare staff's perspective, these situations are seen as common:

> "*Many patients stop as soon as they feel a little better, then they come back when the symptoms return*." (Healthcare Staff 2; Nurse Specialist)

These trajectories illustrate a pragmatic and context-sensitive approach to treatment management, integrated within the economic and social constraints of daily life.

2.1.3. Patients with treatment failure

Patients with treatment failure are those who remain in the care system but exhibit irregular or insufficient adherence, compromising the effectiveness of treatment.

Several factors emerge from the interviews, notably side effects, treatment duration, and fatigue:

> "*There are too many pills; it makes me dizzy and kills my appetite. Sometimes I skip doses."* (Patient 20, 27 years old, on treatment for 5 months but still testing positive on microscopy)

Healthcare professionals confirm these difficulties:

> *"The problem isn't just access to medication; it's consistency. Some patients take it every other day or stop for a few days*." (Healthcare Staff 1, Physician, 56 years old, male)

These situations reflect a presence within the healthcare system without genuine adherence to treatment, revealing the limitations of an approach focused solely on the availability of medications.

In summary, beyond biomedical categories, these forms of non-adherence reveal three sociological patient profiles:

- patients who have dropped out of follow-up (lost to follow-up)
- patients with a discontinuous treatment trajectory (treatment resumptions)
- patients with adherence difficulties (treatment failures)

These profiles show that treatment non-adherence is not a uniform behavior, but a differentiated social process shaped by economic constraints, social interactions, and the symbolic meanings associated with the disease.

2.2. Beliefs and Social Perceptions Related to Tuberculosis

An analysis of the collected data reveals that tuberculosis is not perceived solely as a biomedical disease. It is imbued with social, symbolic, and cultural meanings that profoundly influence how patients interpret their health status and decide whether or not to engage in treatment.

Three main categories of perceptions emerge:

- beliefs about the origin of the disease;
- perceptions of tuberculosis as a serious and stigmatizing disease;
- social interpretations related to contagion and social image.

2.2.1. Tuberculosis as a disease of mystical or supernatural origin.

Some patients attribute tuberculosis to non-biomedical causes, particularly mystical, spiritual, or social ones (jealousy, curses, witchcraft).

“It’s a spell that was cast on me. It’s not a simple illness.” (Patient 4, 38 years old, M)

These beliefs lead some patients to seek alternative or traditional therapies:

> “*Before coming to the hospital, I went to see a traditional healer so he could examine me*” (Patient 12, 31 years old, F)

For healthcare workers, these beliefs directly influence treatment adherence:

> *“Some patients believe it’s mystical, so they first look for a solution elsewhere before returning to the hospital.*” (Healthcare Worker 3, RN, 39 years old, M)

This perception of tuberculosis as a socially or spiritually caused phenomenon conflicts with the biomedical model and can delay adherence to treatment.

2.2.2. Tuberculosis as a Stigmatizing and Shameful Disease

Tuberculosis is also perceived as a socially stigmatizing disease, a source of rejection and stigma:

> *"I prefer to hide my illness, because as soon as people hear 'tuberculosis,' they distance themselves from you*." (Patient 2, 27 years old, F)

Some patients describe forms of rejection within their social circles:

> "*At work, they asked me to stay home when they found out I was coughing a lot.*" (Patient 10, 33 years old; M)

Healthcare professionals confirm this reality:

> *"The stigma is very strong. Even though we reassure them, many patients prefer not to come regularly to avoid being seen at the center."* (Healthcare Staff 1, Physician, 56, M)

Fear of social judgment thus leads to strategies of concealment that can compromise the regularity of treatment follow-up.

The results show that patients construct multiple social representations of tuberculosis, centered around two dimensions:

- an explanatory dimension (mystical or social origins of the illness)
- a social dimension (illness associated with shame and stigma)

These perceptions directly influence treatment behaviors by shaping:

- the choice of care (biomedical vs. traditional)
- motivation to adhere to treatment

Thus, treatment non-adherence appears not only as a material constraint but also as the product of belief systems and social norms.

2.2.3. Social perceptions related to contagion and social image

Patients perceive tuberculosis as highly contagious, which causes fear and social distancing. This perception reinforces stigma, affects patients' social image, and leads them to hide their illness or limit their interactions, thereby influencing their adherence to treatment.

"*People think that if you get close to them, you'll infect them, so they don't come near me*." (Patient 8, 34 years old, M)

"*Even at home, I don't stay too close to others*." (Patient 5, 27 years old, F)

2.3. Social Perceptions of Treatment and Patient Behavior Toward Treatment

Analysis of the interviews reveals that patients' behaviors toward anti-tuberculosis treatment are closely linked to their perceptions of the treatment, its effectiveness, and its duration. These perceptions directly influence patients' attitudes toward adherence, treatment interruption, or switching to alternative therapies.

2.3.1. The perception of a rapid recovery as a factor in treatment discontinuation

Several patients reported that they stopped their treatment as soon as their symptoms disappeared, believing they were cured. The resolution of clinical symptoms was interpreted as a complete recovery, leading to premature discontinuation of treatment:

"*When the cough stopped and I gained weight, I told myself it was over. I didn't see any reason to keep taking the medication."* (Patient 3, 26 years old, F)

"The medication gave me quick relief, so I thought I was already cured." (Patient 8, 30 years old, M)

This perception of rapid recovery appears to be a major factor in patients dropping out of treatment and resuming it.

2.3.2. The Use of Complementary Treatments (Healers and Traditional Practices)

The study also shows that some patients combine or substitute biomedical treatment with visits to healers, traditional practitioners, or fetishists, depending on their beliefs regarding the origin of the illness:

> *"I was told that my illness was caused by a curse, so I went to see a traditional healer to get treated."* (Patient 6, 35 years old, M)
>
> *"In our family, we preferred to try herbal remedies first before going back to the hospital."* (Relative of Patient 2, older sister, 46 years old, F)

These parallel treatment pathways lead to interruptions in treatment, delays in taking medication regularly, and contribute to treatment failure.

2.3.3. The Lengthy Duration of Treatment as a Social and Individual Challenge

The duration of anti-tuberculosis treatment, which patients consider to be long, is a major factor contributing to non-adherence. It is perceived as a constraint on daily, professional, and family activities:

> "*Taking medication for several months is difficult. At some point, you get tired of it."* (Patient 11)

This time constraint encourages irregular medication-taking behavior, or even discontinuation of treatment.

3. DISCUSSION

3.1. Differentiated treatment trajectories and the influence of social factors on adherence

At the Dabou CAT, treatment non-adherence manifests as patients lost to follow-up, treatment resumptions, and treatment failures, reflecting discontinuous treatment pathways. According to Chrétien (1995), adherence depends on a decision-making chain involving the patient, their social environment, the relationship with healthcare providers, and access to medications. These forms of non-compliance illustrate potential breaks in this chain. The work of Fianyo,

Oniankitan, Tagbor et al. (2025) and Zakaria (2023) confirms that loss of follow-up or interruptions are not solely biomedical in nature but are influenced by economic constraints, perceptions of health status, and social representations. Moscovici's theory of social representations (1961) explains that tuberculosis, stigmatization—which is sometimes linked to mystical beliefs—shapes treatment behaviors, including the use of alternative therapies and interruptions in follow-up care. Thus, treatment non-adherence reflects distinct trajectories in which economic, social, and symbolic factors interact, underscoring the need to incorporate these dimensions into strategies aimed at improving adherence.

3.2. The Influence of Social Perceptions and Stigma on Treatment Adherence

The results show that patients perceive tuberculosis as both a mysterious disease and a socially stigmatizing one, which shapes their treatment behaviors. Turning to traditional healers or traditional practices and concealing the disease reflect a strategy aimed at protecting social dignity in the face of stigma. These findings are consistent with the work of Bitchong, Zé, Massongo et al. (2021), who highlight the impact of mystical beliefs on adherence to treatment. N'Guessan (2024) also highlights the role of social and economic factors in the persistence of patient rejection and isolation. According to Moscovici's theory of social representations (1961), these perceptions are collective constructs, reflecting norms and meanings shared within the community.

Thus, non-adherence to treatment is not solely the result of material constraints but is embedded in a system of social and cultural meanings in which the fear of rejection and the desire to maintain one's social standing strongly influence adherence to treatment.

3.3. The dualistic perception of anti-tuberculosis treatment and the discontinuation of medical treatment

Patients perceive the prolonged duration of anti-tuberculosis treatment as burdensome, as it interferes with their daily, professional, and family activities. This perception, combined with

the expectation of a rapid or spontaneous recovery, encourages patients to discontinue treatment prematurely. Furthermore, the concurrent use of traditional treatments or healers reflects a cultural mindset deeply rooted in social perceptions of the disease.

These findings are confirmed by Habibi, Atmane, Hammi et al. (2015), who identify the length of treatment and early improvement in health status as the main causes of treatment discontinuation. N'Guessan (2024) emphasizes that economic insecurity and limited social support exacerbate these behaviors. Fianyo, Oniankitan, Tagbor et al. (2025) and Zakaria (2023) also show that treatment discontinuation and interruptions go beyond the biomedical dimension alone and are rooted in social and cultural determinants. Moscovici's theory of social representations (1961) sheds light on this dynamic. Patients collectively construct the meaning of treatment by integrating cultural beliefs, social perceptions, and individual experiences, thereby explaining why non-adherence persists despite the availability and free nature of care.

CONCLUSION

This study highlights that treatment non-adherence for tuberculosis at the Dabou Tuberculosis Center is not limited solely to biomedical or organizational factors. Patients' treatment trajectories are influenced by social representations and deeply held beliefs, including the attribution of a mystical origin to the disease, the perception of its shameful and stigmatizing nature, and the belief in a rapid cure. These perceptions influence behavior toward treatment, leading to treatment discontinuation, delayed resumption, and the use of alternative therapies. The analysis, informed by Moscovici's theory of social representations, shows that these perceptions are socially constructed and shared, and that they influence treatment adherence. To improve adherence, it is essential to develop care strategies that incorporate cultural, social, and symbolic dimensions, in addition to existing biomedical approaches.

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