

The Social Determinants of the Abandonment of the Yopougon Attie Anti-Tuberculosis Centre By Patients

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Article History

Received: 14.07.2018

Accepted: 23.07.2018

Published: 30.07.2018



Abstract: The aim of this article is to analyse the social determinants of patient's abandonment of the Yopougon-Attie ATC¹. To achieve this objective, a methodology based on a dual qualitative and quantitative approach was used. This has allowed us to achieve the following results: Factors of different kinds are likely, according to societies, to influence the outcome of preventive and therapeutic efforts. It is clear that any intervention strategy for tuberculosis diagnosis, prevention and treatment must be based directly on the local socio-cultural context.

Keywords: Determinants, abandonment of ATC, sick.

INTRODUCTION

Tuberculosis [1] is a serious public health problem worldwide. The World Health Organization

[1] Tuberculosis is an infectious-contagious disease caused by a mycobacterium (Koch's bacillus) that is transmitted by air from a sick person to a healthy individual. While speaking, singing, sneezing or coughing, the patient throws fine infected droplets of saliva into the air. The risk of transmission is related to the density of bacilli in the inspired air but also to the frequency, duration and intensity of contact with a contagious individual [1]. A confined atmosphere increases the risk of contagion. It is for this reason that tuberculosis transmission is mainly a family or hospital phenomenon. Bacilli deposited on the skin or in mucous membranes are rarely infective. Objects belonging to patients (clothing, bedding, kitchen utensils...) play no role in the transmission of the disease. Several clinical and natural history characteristics of this disease, important for diagnostic, therapeutic and preventive conduct, must be emphasized. It is a disease that develops and spreads slowly in human societies. It is distinguished from other contagious diseases (flu or measles, for example) by various aspects. Its incubation period is of variable duration, sometimes several years.

(WHO) estimated that in 1993, one third of the world's population (1.7 billion people) was infected with Koch's bacillus (BK, Mycobacterium tuberculosis), of which approximately 8.8 million people will develop the disease and 3 million will die each year [1]. Indeed, as part of the Millennium Development Goals, the targets were to reduce the overall incidence of tuberculosis by 2015 and to halve the prevalence and mortality rates of tuberculosis by 2015 compared to 1990.

Thus discontinuation of tuberculosis treatment is the main obstacle to achieving the sustainable development goals in point 3.3 (end tuberculosis by 2030). To assess the extent of the problem and progress towards these objectives, reliable monitoring systems are essential. To this end, a working group was set up in June 2006 to measure the impact of tuberculosis on

It is also clinically silent. Although its contagiousness period is longer (a few weeks to a few months, even several years), it is not very contagious. Unlike measles or smallpox, for example, which infect an entire population on initial exposure to their virus, it is estimated that an individual with pulmonary tuberculosis can infect ten people per year under natural conditions, i.e. without treatment[22].

global public health. It was established by the WHO STOP TB Department and includes international TB epidemiology experts representing high endemic TB countries and numerous technical and financial agencies [2]. On the other hand, report annually until 2015 progress towards the 2015 targets and finally strengthen national capacities in monitoring and evaluating TB control. The following recommendations were made: The incidence of TB and TB-related mortality should be measured and the reliability and representativeness of TB case reports and data recorded by WHO should be periodically analysed [2].

Consequently, the achievement of these objectives should make it possible to define recommendations on the usefulness of strengthening national surveillance systems, in order to progress towards the ultimate goal of measuring the impact of tuberculosis directly from notifications and to update the burden of tuberculosis in the various countries. Tuberculosis prevalence studies should be implemented at least in the 21 key countries with the highest prevalence, with at least one study per country in 2015 for which the working group will provide technical support as needed [3].

In Côte d'Ivoire, the care of people with tuberculosis is a public health problem. In the Yopougon ATC, a death rate of 5%, a cure rate of 69%, a failure rate of 3%, a screening rate of 57%, and a lost sight rate of 12% were recorded in 2011 [4]. Over the last five years, the number of patients has increased from 21204 patients in 2006 to 23210 patients in 2010 including 14131 cases of smear positive pulmonary tuberculosis². Although tuberculosis is the eighth leading cause of death in low- and middle-income countries[5], it remains a curable disease in the majority of cases. nearly 90% of patients with tuberculosis can be cured within six months [6]. Indeed, in the fight against tuberculosis. The State of Côte d'Ivoire has demonstrated its commitment through the Abuja Declaration and Plan of Action on HIV/AIDS, tuberculosis and other related infectious diseases of April 2001, which recognizes the difficulties in formulating feasible policies, strategies, structures and procedures for adequate prevention and control of these diseases.

Indeed, in August 2001, the National Tuberculosis Control Programme (NTCP) was created by Order N°279 of 08 August 2001 amended by Order N°312 /MSHP/CAB of 04 October 2007 itself amended by Order N°118/MSHP/CAB of 06 May 2009. The State's commitment is also reflected in the regular and free availability of essential anti-tuberculosis drugs. Support from national and international partners has helped to improve the performance of the NTCP. To this end, in 2010 there were 140 functional diagnostic

and treatment centres (DTC), including 16 anti-tuberculosis centres (ATC); 1,642 health personnel trained to identify suspicious cases and monitor patients put on treatment. The community component is not ignored; 353 NGO members have been trained to follow up patients outside health structures. 753 community health workers (CHWs) were also recruited, trained and equipped to ensure community follow-up of patients and to identify and refer suspected cases from the communities to health facilities[7].

As part of the fight against tuberculosis, Côte d'Ivoire has received Round 3, Round 6 and Round 9 funding from the Global Fund. This funding made it possible to strengthen care activities through staff training, rehabilitation and equipment of structures, monitoring and evaluation of tuberculosis control activities and the supply of laboratory reagents and consumables. Concerning Round 9 entitled "Prevention of multi-resistant tuberculosis by improving the overall management of tuberculosis" currently being implemented, the project provides for the acquisition of anti-tuberculosis drugs and the strengthening of the overall management of multi-resistant tuberculosis patients (PNLT Report, op cit).

Despite support from the Global Fund's Round 3, Round 6 and Round 9 funding to strengthen care activities through staff training, rehabilitation and equipment of facilities, monitoring and evaluation of tuberculosis control activities, patients continue to abandon treatment and the rate of loss of sight remains high. During the year 2015, the ATC of Yopougon Attié recorded 237 cases of patients treated by the said ATC who abandoned treatment. From this observation, it is important to question the social determinants of abandonment of ATC patients?

METHODOLOGY

A field survey was conducted at ATC Yopougon from 25 March to 28 April 2016. It mobilized two approaches, one qualitative and the other quantitative. For the quantitative sample composed of all patients seen in consultation and who dropped anti-tuberculosis treatment at the yopougons ATC, 237. The inclusion criterion is the medical condition of the patients. By statistical calculation according to the Grawitz madeleine approach, the size of our population to survey is: 23.7 or 24 patients to survey (237.10%). For the composition of the qualitative sample, we opted for the technique by reasoned choice or nonprobability sampling. The eligibility criterion is the status and availability of the processors.

RESULTS

Reflections on strategies to control and fight tuberculosis go far beyond simple questions of contagiousness, patient sensitivity to specific drugs or patient adherence to prescribed therapeutic regimens. Factors of different kinds are likely, depending on the

² The contagious form of the disease

company, to influence the outcome of preventive and therapeutic efforts, and in particular: the precariousness of care structures affecting the quality of diagnosis, the availability and distribution of medicines, screening and monitoring of contact subjects, support and supervision of treatment and, on the part of patients, geographical and economic accessibility to healthcare centres; non-compliance by health professionals with the technical standards and recommendations conveyed by the national tuberculosis control programmes of their respective countries regarding diagnostic, preventive and therapeutic conduct; linguistic and cultural differences between health professionals and their patients that may alter their communication and relationships; local health and disease concepts and practices; and poor adherence to treatment of patients.

Thus, to be effective, health professionals must first and foremost recognize that TB control and control are multifactorial problems involving public health policies, the socio-cultural characteristics of the populations concerned, and the attitudes and expectations of health workers and their patients. Strategies to control the spread of tuberculosis in a particular society or region must take these factors into

account. Considering the clinical and natural history characteristics of tuberculosis (slow progression and spread in society, infection/disease distinction, absence of pathognomonic signs, chronic progression, possibility of relapse...) as well as constraints in terms of preventive and therapeutic conduct (chemoprophylaxis, long-term treatment, potential side effects of drugs), it is clear that any intervention strategy for diagnosis, prevention and treatment must be based directly on the local socio-cultural context.

Socio-economic characteristics of patients

The analysis of the factors explaining the abandonment of patients at the Yopougon Attié CAT reveals several sociological indicators structured around the classic variables: age; sex; marital status; level of education; and socio-professional status.

AGE

Figure 1 below shows the distribution of patients according to the age variable. age is a significant variable, because it allows us to understand an individual's cognitive attitudes. However, the social representations of the tuberculosis patient may differ for adolescents, young people and adults.

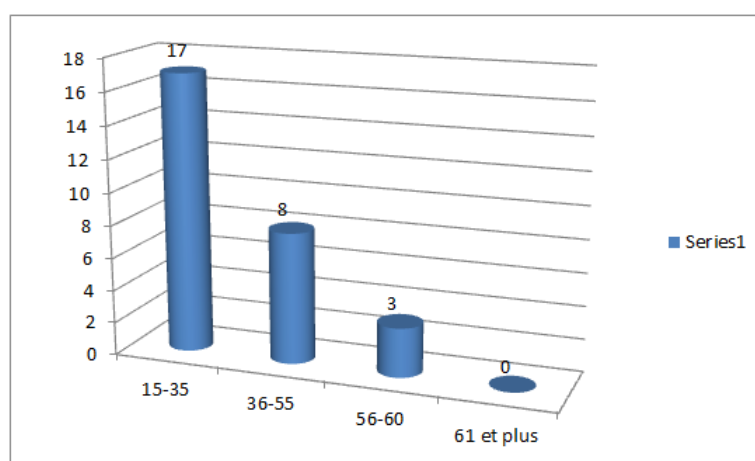


Fig-1: Age Distribution of Patients

Série 1 = Sery 1

61 et plus = 61 and more

Source: Our 2016 survey

Figure 1 shows that the age of tuberculosis patients in this study ranged from 15 to 60 years. Indeed, 60.71% of patients are in the 15 to 35 age group. This shows that young people are the most vulnerable. This vulnerability of young people to tuberculosis is explained by the fact that young people are increasingly engaging in practices that expose them to disease. This is the testimony of T.A, a tuberculous patient: "I smoked half a day or a pack of cigarettes. When I became ill, X-rays showed that my lungs were affected," and it appears from this testimony that tuberculosis is a disease related to the individual's lifestyle.

This result calls into question certain characteristics of the history of tuberculosis already mentioned by Buchill *et al.* [8], whose study on the causes of tuberculosis is attributed to witchcraft. This etiological conception of tuberculosis could explain the delay between the appearance of the first symptoms and the use of modern medical care. In this study, the etiological dimension of tuberculosis could not call into question the validity of preventive procedures. That is, the isolation of the sick.

SEX

Figure 2 shows the distribution of patients by sex. We have considered gender as an important indicator insofar as sensitivity and vulnerability may differ whether you are a man or a woman. Indeed, the

choice of this variable to explain the explanatory factors for dropping out of treatment. In other words, we are looking for which of man or woman is more vulnerable in the framework of our study.

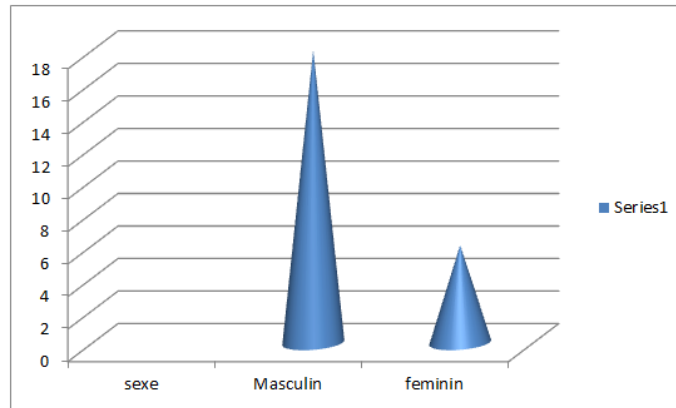


Fig-2: Gender distribution of patients

Sexe = sex
 Masculin = male
 Feminin = femelle
 Série 1 = sery 1
 Source: Our 2016 survey

Figure 2 below shows that 75% of patients are male. This finding reflects the fact that in this study the male sex is the most vulnerable. The factors behind this high male vulnerability may be explained by the fact that men's lifestyle exposes them to tuberculosis. This result is similar to the results of the study conducted in Vietnam [9], which explains that tuberculosis of a contagious nature, due to koch(BK) bacils, is the form that preferably affects men.

MARITAL STATUS

Figure 3 below shows the distribution of patients by marital status. Marital status is a measure of an individual's level of social responsibility. In society, it is assumed that married people mobilize together the material and financial means to help their suffering loved one.

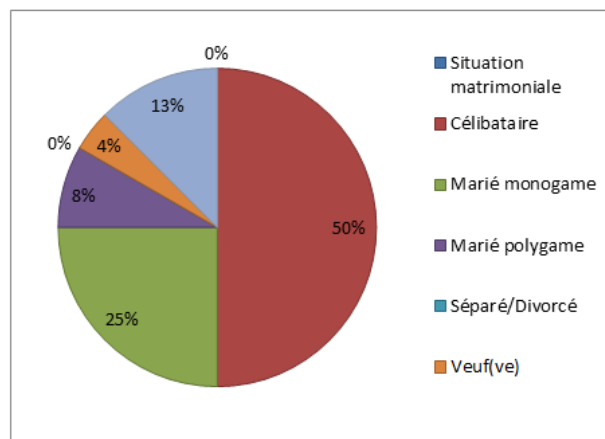


Fig-3: Distribution of patients by marital status

Situation matrimoniale = Marital status
 Célibataire = single
 Marié monogame =Marriedmonogamous
 Marié polygame = marriedpolygamous
 Séparé / divorcé = Separated / divorced
 Veuf (ve) = widower / widow
 Source: Our 2016 survey

An analysis of Figure 3 shows that half of the patients interviewed are not married. This shows that there is practically no family follow-up for patients. The fact that patients are not married could have an impact on their family care. Because the socio-family framework is decisive in the care of individuals in situations of invulnerability.

Indeed, the married individual with tuberculosis could benefit from quality care unlike another unmarried individual with tuberculosis. The marital status of the patients is a determining factor in their care. It is in this sense that D.M, a patient interviewed at the yopougonghospitalAttié in these words: "I no longer work but thanks to my husband, I pay my transport to come to my medical appointments".

This finding shows that the medical care of the sick married individual is the responsibility of his or her spouse. The social and family environment is decisive

for the care and cure of the individual suffering from tuberculosis. It is in this same sense that D.F., a patient interviewed at the hospital in YopougongAttié, adds: "If I wasn't in a home, I couldn't follow my treatment correctly. I often forget to take my tablets. It's my husband who reminds me that I have to take my medication."

LEVEL OF EDUCATION

Figure 3 below shows the distribution of patients by level of education. We chose the level of education because we find that individuals who qualify as illiterate do not most of the time hold the same reasoning as those who have a higher or secondary level of education. We selected this indicator as part of this study to assess patients' perception of tuberculosis in terms of their level of understanding of medical prescriptions and the factors justifying discontinuation of treatment.

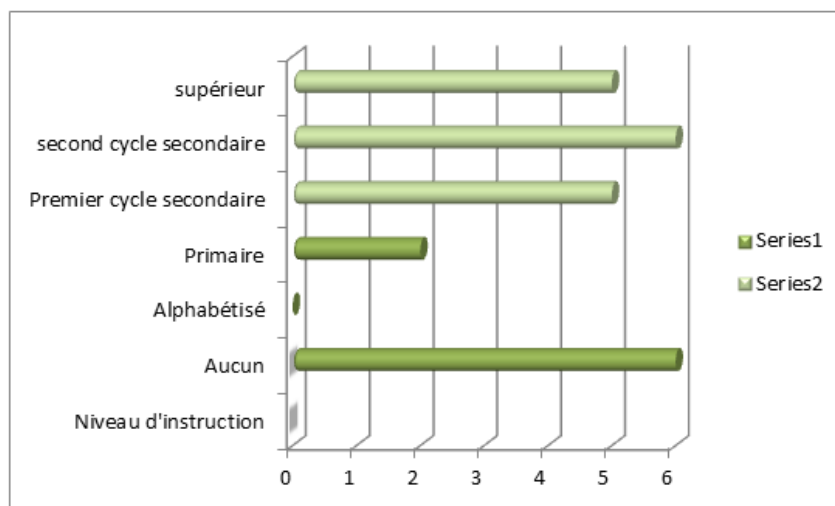


Fig-4: Distribution of patients by level of education

Superieur= Superior
 Second cycle secondaire = Second cycle secondary
 Premier cycle secondaire = first secondary school
 Primaire = elementary school
 Alphabétisé = Amphabetised
 Aucun = None

Source: Our 2016 survey

According to Figure 4, 50% of the patients surveyed have no level of education. This poses a difficulty in their care. This is explained Q.M, a patient interviewed at the YopougongAttié hospital in these words: "I can't read and when I forget the instructions given by the doctor, I don't take my tablets". This shows that illiterate patients are not following their treatments properly.

Failure to follow treatment correctly could extend the patient's treatment for more than six months. The educational level of patients is therefore an

important indicator for the effective management of patients. Literate parents could better monitor their treatments in terms of medication dosage.

PROFESSIONAL ACTIVITY

Figure 5 below shows the distribution of respondents by socio-professional activity. Socio-professional activity is a determining variable and can influence an individual's decision in a given situation. Indeed, in this study, we chose to study the source of income of patients because the management of a disease

is linked to the economic capital available to individuals.

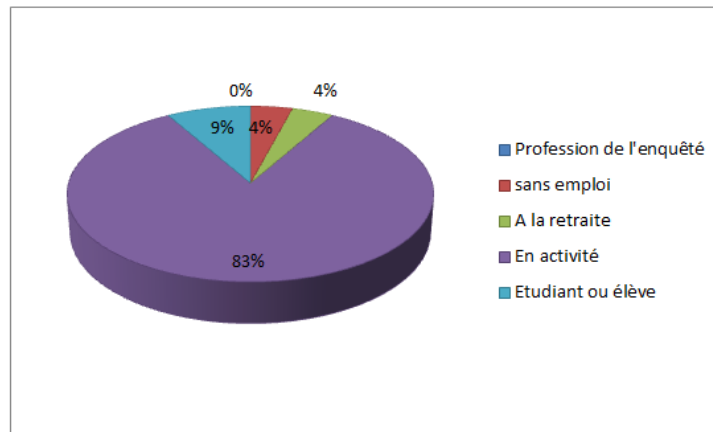


Fig-5: Distribution of patients according to socio-professional activity

Profession de l'enquête = Respondent's occupation

Sans emploi = Unemployed

A la retraite = On retirement

En activité = In activity

Etudiant ou élève = student or pupil

Source: Our 2016 survey

An analysis of Figure 5 shows that ¾ patients are gainfully employed. Indeed, patients' non-adherence to the therapeutic regime is not linked to their sources of income. This result confirms the results of studies conducted in the United States [10] and Brazil [11]. Our

study shows that adherence to treatment is a multifactorial problem that goes far beyond patients' personal characteristics.

Perception of tuberculosis in patients

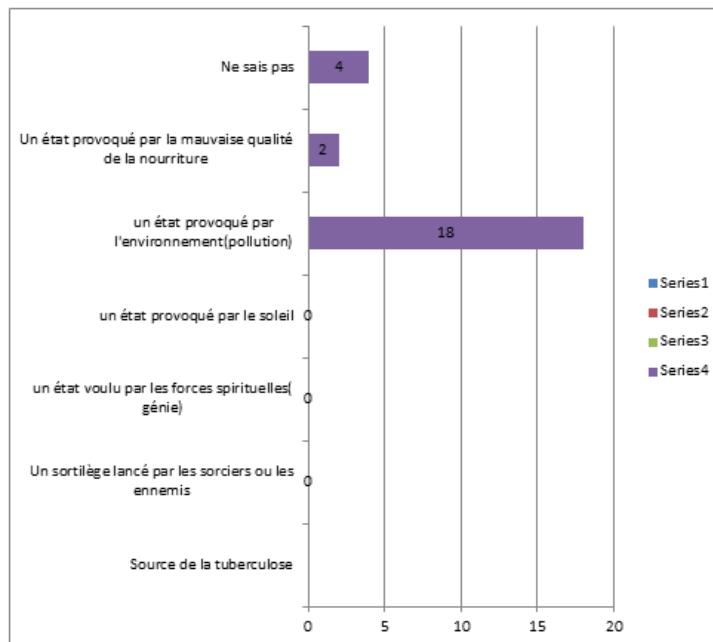


Fig-6: Patient Perception of Tuberculosis

Ne sais pas = Don't know

Un état provoqué par la mauvaise qualité de la nourriture = A condition caused by poor food quality

Un état provoqué par l'environnement (pollution) = A condition caused by the environment (pollution)

Un état provoqué par le soleil = A condition caused by the sun

Un état voulu par les forces spirituelles (génies) = A condition desired by spiritual forces (geniuses)

Un sortilège lancé par les sorciers ou les ennemis = A spellcast by sorcerers or enemies

Source de la tuberculose = Source of tuberculosis; Source: Our 2016 survey

In the analysis of Figure 6, it should be noted that 75% of the patients interviewed stated that the etiology of tuberculosis is a condition caused by environmental pollution. G.J, a patient interviewed at the yopougou-Attié hospital said: "I contracted tuberculosis in my family. There's a cousin, who suffers from tuberculosis, two months ago. I am convinced that it is by speaking to me often that he has infected me" Indeed, the recognition of the transmissible character of tuberculosis by the patients rests on their perceptions of the disease.

This result is comparable to the results of the study conducted by Caprara in 2000. Indeed, local conceptions of the mechanisms of contagion are often different from Western ones and may not apply to diseases perceived by Western medicine as contagious. Each society has specific representations about how diseases are transmitted and spread; these may be, for

example, through indirect contact. This is explained by Q.D, a patient interviewed at the Yopougou hospital: "When I started coughing, I continued to have the family meal together with my brothers. A week later, the cough continued and I went to the hospital. It was after the sputum test that the doctor told me I had tuberculosis". These various elements can act either as additional causes or predisposing factors, in the latter case placing the individual in a state of vulnerability that favours the development of the disease. This result is not consistent with those of Barnhoorn and Adriaanse [12]. For these authors, in India or Pakistan, tuberculosis is a cause for women's division. In this context, it is quite understandable that the latter refuses the diagnosis of the disease. These designs have obvious implications for health professionals in the diagnosis of tuberculosis.

The perception of the drug in patients

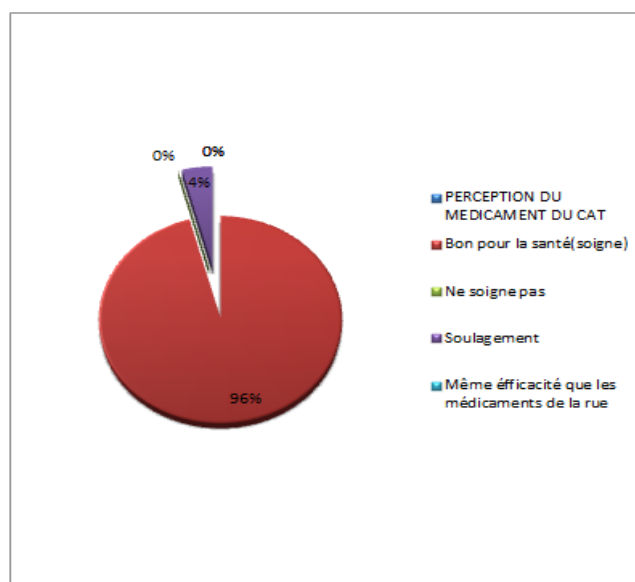


Fig-7: Patient perception of the drug

Perception du médicament du CAT= Perception of the drug from ATC

Bon pour la santé (soigne)= Good for your health (heals)

Ne soigne pas =Does not heal

Soulagement =Relief

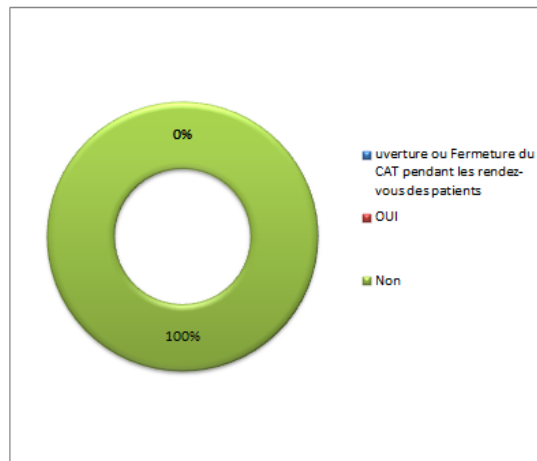
Même efficacité que les médicaments de la rue =Same effectiveness as street drugs

Source: Our 2016 survey

When reading Figure 7, it should be noted that almost all patients recognize that the drugs they receive from their care providers are effective. The perception and use of medications are often also different in indigenous societies, as demonstrated by Buchillet's study [13, 14]. For the author, indigenous people often consist in identifying a physical characteristic (shape, colour, etc.) desired for the purpose of the treatment. The plants used for the treatment of tuberculosis are chosen according to a physical characteristic that

symbolically evokes the desired effect in the treatment of a disease. The concepts of dosage, duration of treatment, periodicity and suitability of a drug for a particular type of symptom or disease, which are key elements of therapeutic effectiveness. The relatively long duration of treatment as well as the side effects of anti-tuberculosis drugs, as Kouadio, a doctor at ATC, testifies: "Can also have a negative influence on adherence to treatment, although these do not automatically seem to lead to poor adherence".

Advice from patients on the opening or closing of the ATC at appointment times



Ouverture ou fermeture du CAT pendant les rendez-vous des patients = Opening or closing the ATC during patient appointments

Oui = yes

Non = no

Source: Our 2016 survey

The patients unanimously affirm that the ATC is always open at appointment times. The law of the dialectical movement stipulates that nothing is immutable and that every phenomenon is in motion. This postulate has enabled us to show that the health situation of tuberculosis patients, although worrying, can undergo a positive change through regular attendance at the ATC, which is always open. Indeed,

by taking into account the various health recommendations for the management of tuberculosis patients, by educating patients about regular attendance at health centres, we would improve the health of tuberculosis patients.

The accessibility of medication by patients at ATC

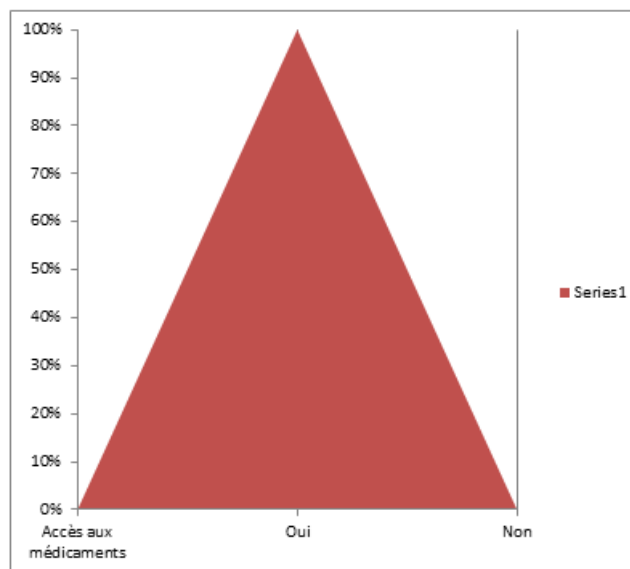


Fig-9: Patient Access to Medication at the ATC

Acces aux medicaments = Access to medicines

Serie 1= sery 1

Oui = yes

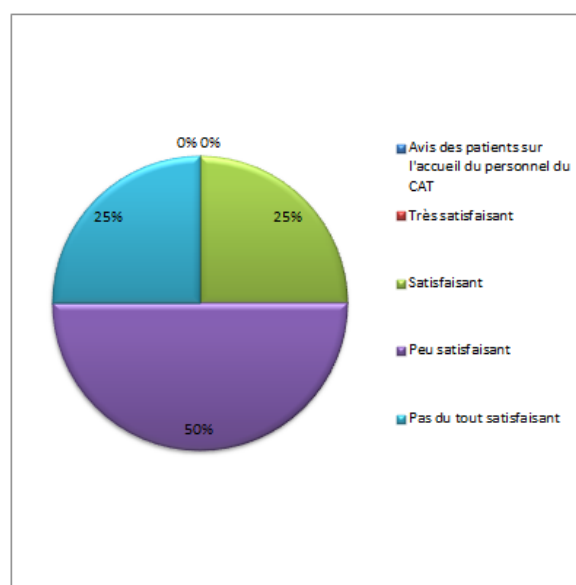
Non= no

Source: Our 2016 survey

When reading Figure 9, it is worth mentioning that almost all patients testify to the ease of access to ATC care. This result is not consistent with the results of the study conducted by Ruffino-Netto [15]. The author highlights the logistical issues of abandonment of patients from therapy centers. Indeed, the irregular supply of medicines to health services is a problem that

patients may face. The results of this study show that ATC gives medicines free of charge to patients. This is what D.K., a patient interviewed at ATC, testifies in these expressions: "They give me medicines free of charge at ATC".

Report treaters and patients to the atc



I-Fig-10: treaters and patients report to ATC

Avis des patients sur l'accueil du personnel du CAT= Patient feedback on the reception of ATC

Très satisfaisant = Verysatisfactory

Satisfaisant = Satisfactory

Peu satisfait= Not verysatisfied

Pas du tout satisfaisant= Not at all satisfactory

Source: Our 2016 survey

Figure 10 shows that ½ of the patients interviewed find their relationship with health specialists unsatisfactory. The quality of the relationship between the treatment providers and the patients is decisive for the patients' adherence to the therapeutic regime. It may be affected by linguistic or cultural differences that could not only lead to misdiagnosis, but also hinder the patient's collaboration in the therapy of their disease. It is in this sense that A.P, a patient, testifies in these expressions: "Doctors have a medical vocabulary. It is often difficult for us, patients with a secondary level of education, to better understand treatment".

This result confirms the results of Buchillet's study [16], According to the author in the Rio Negro region of Brazil, as probably elsewhere, the indigenous patient often feels discriminated against by the doctor who shows little interest in his ethnic and socio-cultural characteristics, usually limiting himself to providing him in Portuguese with some rapid explanations about the disease, its mode of transmission and its evolution, as well as on the need to follow the treatment until the

end under penalty of relapse, without worrying whether his patient has understood them. The law of interaction which observes that everything influences everything, everything is in the whole and that social facts and elements must always be placed in their context. With the law of interaction, we have highlighted the interaction between the practices of patients, the attitudes and behaviors of health workers who interact in the management of tubercular diseases. This law has enabled us to highlight the joint efforts of social actors in improving the health of tuberculosis patients. It has also promoted an integrated and participatory approach in promoting the health of tuberculosis patients by taking into account the different social representations of lung diseases. For social representations of health and disease are inscribed in the socio-anthropological sense of the term in "socius" and history. They reflect the nature of the individual's relationship to society itself. They reside in particular in the interest of observing the circulation of secular knowledge and scientific knowledge, individuals integrating part of medical knowledge.

DISCUSSION

The management of patients suffering from tuberculosis is a public health problem. In recent years, despite the care policies put in place by international organizations and the State of Côte d'Ivoire to provide quality care for tuberculosis patients, the number of people lost to sight remains high in health centres. In this context, the systematic reluctance or abandonment of patients from health centres can be explained by several factors that legitimize the abandonment of patients from therapeutic care centres. This study has shown that the relationship between patients and treaters is unsatisfactory.

This finding confirms the study conducted by Hong which showed that sometimes it is the therapeutic protocols that are not respected by doctors. A survey carried out in several private clinics in Korea revealed significant variations in terms of treatment regimen prescriptions and treatment duration, with cure rates for patients treated for pulmonary tuberculosis being lower than those obtained by health centres that integrate the national tuberculosis control programme [17].

It should be stressed here that non-adherence to treatment by patients, far from being a specific tuberculosis problem, is encountered by all physicians in their daily clinical practice. Despite various attempts by health professionals to identify criteria for predicting a patient's ability to adhere or not to adhere, it appears that the patient's gender, age, marital status, socio-economic living conditions, and even conceptions and practices regarding tuberculosis in no way predict future adherence to treatment [18, 19]. This means, in fact, that no patient is a priori not adherent. As this study shows, adherence to treatment is a multifactorial problem that goes far beyond patients' personal characteristics. Logistical questions^[3], factors related to

They refer to the organization, functioning and ease of access to care services as well as the cost (direct or indirect) of diagnostic or therapeutic measures for the patient. Problems of geographical accessibility as well as consequent transport difficulties, the cost of remedies, the irregular supply of health services with medicines... are some of the problems patients may face^[3]. In many countries, drugs that are part of the short-term treatment regimen are not always available from national tuberculosis control programmes. This is what happened in 1991-1992 in Brazil during the interruption of the national tuberculosis control campaign (CNCT) for various reasons (decentralization of health care services, financial disengagement of the federal State, perception of the uselessness of the CNCT, etc.) [15]. For this reason, they do not respect the treatment or take only part of the antibiotics prescribed, which, as we have seen, can promote the development of resistant tuberculosis. Even in cases where drugs are received free of charge, as in Brazil, the outpatient patient will have to return regularly to the health centre to receive further treatment and carry out

the quality of the doctor-patient relationship, the nature of the illness and that of the therapeutic regime or, finally, the socio-cultural context of the patient, condition both the use of care and therapeutic adherence. The quality of the relationship between health professionals and their patients is critical to their adherence to the therapeutic regimen. It can be affected by linguistic or cultural differences that can not only lead to misdiagnosis, but also hinder the patient's collaboration in the treatment of his or her illness.

The linguistic and cultural differences between patients and health professionals can, as we can see, affect their relationship, the understanding by the former of the explanations given to them during the medical consultation and, a fortiori, their potential degree of adherence to treatment.

However, it is worth stressing this, despite the importance for patients to be informed about the nature of their disease, the duration of treatment, the potential side effects of anti-tuberculosis drugs, the importance of taking drugs according to medical prescription, as well as the consequences of temporary interruption or withdrawal of treatment, health professionals do not always give them sufficient explanations that could facilitate their adherence to treatment.

In addition, the short time devoted to the patient during the medical consultation generally

clinical and bacteriological monitoring, resulting in problems of accessibility and additional cost. In the majority of cases, he will interrupt treatment or take medication irregularly (Kritski, Ruffino-Netto, idem). Many of them with low financial capital flee on this occasion. At the end of this phase, patients return to their home community on an outpatient basis, either with one month of treatment if they live a reasonable distance from the hospital, or with the rest of the treatment (four months) if their place of residence is far from the hospital. They are therefore expected to return regularly to the health centre for further treatment or at the end of treatment for clinical and bacteriological monitoring. This raises the geographic accessibility and cost issues outlined above [20]. For its part, the local health structure does not have the material means to supervise the treatment of patients in the Indian communities, which are widely dispersed in the region and often difficult to access. In addition, there are too few community health workers to take care of them, the majority of whom do not have the material means to make regular visits to communities far from their jurisdiction (lack of outboard motors or petrol). Thus, once back in their home communities, TB patients are left to fend for themselves, without any supervision of treatment or control of potential side effects of the drugs. [Hugh-Jones, Hugh-Jones, idem]. Accessibility (geographic, economic), according to the authors, could affect both use of care and adherence to treatment.

invalidates any attempt by the patient to discuss the socio-cultural and economic aspects possibly associated with his or her illness, or the psychological impact of the tuberculosis diagnosis on his or her own life and that of his or her family.

In reality, in the latter case, it is not simply a question of the physician's available time but also of his or her own perceptions of his or her role and of his or her appreciation of whether or not to pass on certain information to the patient, given the patient's supposed level of understanding. In other words, it is also a question of health professionals' representations of their patients and their possible behavior, a particularly acute problem when patients are illiterate with low incomes, which they generally perceive as ignorant, living in certain promiscuity, without minimum notions of hygiene, not respecting therapeutic indications and, finally, behaving inconsistently in the use of care.

The nature of the therapeutic regimen is also a challenge for both the health professional and the patient, as it involves the administration and daily (or bi-weekly) administration of two or three drugs for at least six months. The relatively long duration of treatment as well as the side effects of anti-tuberculosis drugs can also negatively influence adherence to treatment, although these do not appear to automatically lead to poor adherence as some studies have shown [21,18].

CONCLUSION

The above reflections show that strategies to control and fight tuberculosis go beyond simple issues of contagiousness, patient sensitivity to specific drugs or patient adherence to prescribed therapeutic regimens. Factors of different kinds are likely, depending on the company, to influence the outcome of preventive and therapeutic efforts, and in particular: the precariousness of care structures affecting the quality of diagnosis, the availability and distribution of medicines, screening and monitoring of contact subjects, support and supervision of treatment and, on the part of patients, geographical and economic accessibility to healthcare centers; non-compliance by health professionals with the technical standards and recommendations conveyed by the national tuberculosis control programmers of their respective countries regarding diagnostic, preventive and therapeutic conduct; linguistic and cultural differences between health professionals and their patients that may alter their communication and relationships; local health and disease concepts and practices; and poor adherence to treatment of patients.

Thus, to be effective, health professionals must first and foremost recognize that TB control and control are multifactorial problems involving public health policies, the socio-cultural characteristics of the populations concerned, and the attitudes and expectations of health workers and their patients.

Strategies to control the spread of tuberculosis in a particular society or region must take these factors into account. If we consider the clinical and natural history characteristics of tuberculosis (slow progression and spread in society, infection/disease distinction, absence of pathognomonic signs, chronic progression, possibility of relapse...) as well as the constraints in terms of preventive and therapeutic conduct (long-term treatment, potential side effects of drugs), it is clear that any intervention strategy for diagnosis, prevention and treatment must be based directly on the socio-cultural context.

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