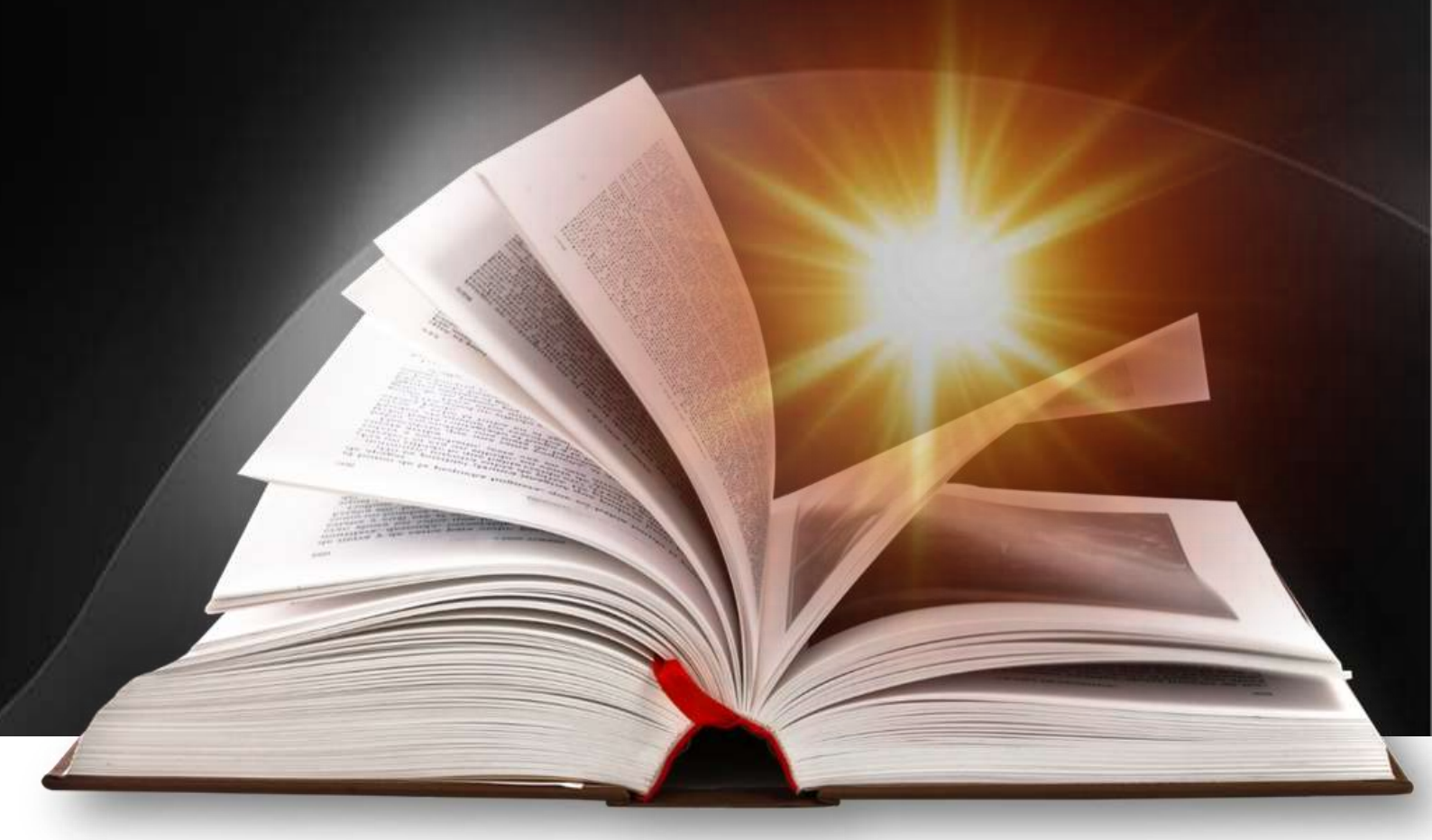
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A brief sociology of the paradoxes of malaria control in Gbagba (Côte d'Ivoire)

[Petite sociologie des paradoxes de lutte contre le paludisme à Gbagba (Côte d'Ivoire)]

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Editorial

Nous sommes honorés de vous convier à explorer les profondeurs de la pensée et de l'innovation africaines à travers ce numéro inaugural de l'année 2024 pour la Revue Panafricaine de la Jeunesse. À l'intérieur de ces pages, vous découvrirez une diversité d'idées et de perspectives provenant des esprits les plus brillants du continent africain et au-delà.

Notre objectif essentiel demeure clair et pressant : éclairer la scène intellectuelle pour les décideurs politiques, les chercheurs, les acteurs sociaux et tous ceux assoiffés de connaissance, en offrant des fondations scientifiques robustes et fiables.

La Revue Panafricaine de la Jeunesse est devenue une voix internationale, un lieu où convergent des études enracinées dans la réalité africaine. Autrefois confrontées à des barrières éditoriales, ces études rayonnent désormais, reflétant la diversité des voix et des expériences qui enrichissent notre continent.

L'essor remarquable de la science africaine est un héritage collectif à préserver, une source d'énergie à nourrir avec passion. Les membres dévoués de notre comité scientifique, accompagnés d'experts issus de divers horizons, ont relevé avec enthousiasme le défi d'enrichir la pensée africaine. La variété des connaissances et des idées, s'étendant au-delà des frontières de l'Afrique, fait de la RPJ une plateforme panafricaine en perpétuelle évolution, porteuse d'une promesse renouvelée à chaque parution.

En tant que bastion de la recherche africaine, la RPJ s'engage fermement à maintenir des normes de qualité rigoureuses, avec un processus de sélection sérieux garantissant un taux d'acceptation de 50%. L'accueil enthousiaste que nous recevons d'un public vaste et diversifié, tant africain qu'international, témoigne de notre engagement à promouvoir une science africaine solide et irréprochable.

Ce numéro exceptionnel présente les contributions de chercheurs éminents explorant une multitude de domaines cruciaux pour notre époque. Chacun de ces articles, soigneusement façonné, offre une plongée captivante dans des thématiques essentielles pour notre temps.

Notre équipe éditoriale, en collaboration avec notre comité scientifique et nos évaluateurs externes, travaille sans relâche avec les auteurs pour garantir la qualité et la pertinence de chaque contribution. Cette synergie collaborative est cruciale pour propulser la science africaine au pinacle international, assurant que les sociétés africaines récoltent pleinement les fruits de la recherche novatrice.

Nous vous invitons à vous plonger avec passion dans ce numéro captivant, à dévoiler les trésors de la science africaine et à rejoindre notre communauté de lecteurs. En participant à cette aventure intellectuelle, vous contribuez à renforcer l'influence de la science africaine à l'échelle mondiale, ouvrant ainsi la voie à des sociétés africaines éclairées par les lumières de la recherche de qualité. Embarquez avec nous dans ce voyage fascinant à travers les découvertes, les innovations, et les idées qui sculptent le futur dynamique de l'Afrique et du monde.

Dr Basile Mulwani Makelele
Professeur des Universités

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A brief sociology of the paradoxes of malaria control in Gbagba (Côte d'Ivoire)

[Petite sociologie des paradoxes de lutte contre le paludisme à Gbagba (Côte d'Ivoire)]

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Abstract

Despite public efforts to combat malaria, certain categories of the Bingerville population are increasingly adopting practices considered incongruous, such as the use of insecticide sprays (Rambo, baygon etc.), mosquito coils and self-medication without prior Rapid Diagnostic Tests. They also adopt anti-environmental behaviours such as dumping household waste out of garbage bins, and dumping wastewater to create puddles in the vicinity of households. On the basis of a qualitative study, the text apprehends the contradiction between public actions to combat malaria and practices observed among the population, such as social representations of the disease. In so doing, it analyzes the social representations that health specialists and the local population have of anti-malaria actions. Thus, the text: i) translates the forms of production of local knowledge of fight among the population of Gbagba; ii) shows the way in which collective actions integrating both public policies and local actions structuring the fight against malaria; iii) studies the forms of justification associated with the fight against malaria in Gbagba.

Key words : Public action, malaria, practices, social representations, Côte d'Ivoire

Résumé

En dépit des actions publiques de lutte contre le paludisme, il est de plus en plus observé chez certaines catégories de la population de Bingerville des pratiques jugées incongrues se traduisant par l'usage des bombes insecticides (Rambo, baygon etc.), les serpentins (moustico) et l'automédication sans Tests de Diagnostics Rapide au

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préalable. Aussi adoptent-elle des comportements anti-écologiques se manifestant par le déversement des ordures ménagères hors des barques à ordure, et le déversement des eaux usées créant des flaques d'eaux aux environs des ménages. Sur la base d'une étude qualitative, le texte appréhende la contradiction entre les actions publiques de lutte contre le paludisme et les pratiques observées chez la population comme les représentations sociales de la maladie. Ce faisant, il analyse les représentations sociales que les spécialistes de la santé et la population locale se font des actions de lutte contre le paludisme. Ainsi, le texte : i) traduit les formes de production des connaissances locales de lutte chez la population de Gbagba ; ii) montre la façon dont les actions collectives intégrant à la fois les politiques publiques et actions locales structurant la lutte contre le paludisme ; iii) étudie les formes de justification associées à la lutte contre le paludisme à Gbagba.

Mots-clés : Actions publiques, paludisme, pratiques, représentations sociales, Côte d'Ivoire

0. Introduction

Considered a parasitic infection transmitted by the anopheles, the female mosquito (World Health Organization, 2017:3), malaria is one of the diseases that continues to have devastating consequences on the health of populations worldwide (Acray-Zengbe Petronille and Oussou Konan Roland, Aka Lepri Bernadin Nicaise, Nguejio Tsobeng Bienvenu, Akani Bangama Christian, Kouassi Roméo, 2017:4). This is the cause of many deaths worldwide, particularly in Africa. In 2022, the number of malaria cases was estimated at 249 million and the number of deaths due to malaria was 608,000, in 85 countries (World Health Organization, 2023: 3). According to the Organization's Biennial Report, although the number of deaths due to malaria is falling in Côte d'Ivoire, at a rate of around 50%, it remains a major public health challenge (2020). Because of its impact on the Ivorian population, with a high death rate, malaria remains the leading cause of consultation in public health structures (37%2) and the leading cause of death in children aged 0 to 5 (WHO Biennial Report 2020-2021: 70).

Faced with the number of deaths that malaria records every year in the world as indicated by the aforementioned results, the World Health Organization has embarked on a vast awareness campaign. Thus, since the year 2015, "The Global Technical Strategy for Malaria Control 2016-2030" has been adopted by the World Health Assembly. The strategy aims to reduce malaria mortality rates and the incidence of the disease by at least 90% by 2030 (NMCP, 202:15). Côte d'Ivoire has not remained on the sidelines of this strategy either, and is in turn stepping up its efforts to combat malaria.

The fight against malaria is not a new phenomenon in Côte d'Ivoire. As long ago as 1996, malaria was listed as a priority disease in the National Health Development Plan (PNDS), which led to the creation of the National Malaria Control Program (PNLP) by decree N°133 MSP/CAB/ of May 09 1996 (PNLP, 2022:14). Between 1997 and 1999, this enabled Côte d'Ivoire to benefit from the World Health Organization's (WHO) plan to accelerate malaria control in the African region. According to the NMCP report, actions such as parasite control with proper diagnosis, rapid treatment of malaria cases and indoor residual spraying were carried out (NMCP, 2022:8). Furthermore, with the universal health coverage program, it had the distribution of mosquito nets in households at a rate of 93% with 15 million LLINs in 2017 and 2018. The rate of use of LLINs rose from 33% in 2012 to 63% in 2020, according to the Ministry of Health's annual report (RNV, 2022:46).

The commune of Bingerville has not been spared in this program to combat malaria. According to the data collected, several actions have been carried out in the locality, particularly in Gbagba. These included the distribution of impregnated mosquito nets, a mosquito control program involving indoor spraying of insecticides, not to mention awareness-raising campaigns using billboards. Tracts and leaflets were also distributed at health facilities and health centers by health workers. The population was also made aware of the importance of preserving the environment, such as keeping household waste inside garbage bins, not discharging sewage around homes, etc. These actions have been taken to enable the population to be increasingly informed about the disease and to be in a position to fight against it. In addition, the population is asked to use Rapid Diagnostic Tests (RDT) before taking any medication.

In view of the various actions and strategies implemented to combat malaria and even eradicate it at local level, we should expect the population, particularly those of Gbagba, to adopt the same strategies. In other words, this population should only resort to formal practices recommended by the State.

However, empirical findings reveal control practices that run counter to those advocated by the State. In Gbagba, the use of insecticide bombs (Rambo, baygon etc.), mosquito coils and self-medication without prior rapid diagnostic tests (RDTs) is increasingly observed. They also adopt anti-ecological behaviours such as the presence of household waste outside garbage boats, and puddles of water around households following the dumping of sewage. So, if the strategies at the heart of the State's actions are aimed at eradicating malaria, how is it that the people of Gbagba are resorting to contrary practices?

Answering this question suggests an exploration of scientific thinking on malaria control practices. The causes of the disease, medically attributed to the mosquito bite,

force conventional malaria prevention and control practices to focus on larval control, environmental modification (Doudou Dimi Théodore and Doannio Julien Marie Christian, Konan Lucien Yao , Djouaka Rousseau , Toé Paré Léa , Akogbéto Martin , 2006 :432) and vector control. As a result, emphasis is also placed on communication strategies for behavior change and prophylaxis (Gogognon Patrick, 2012 :12).

All this work has indeed contributed to progress and enlightenment in the fight against malaria, but there are still unexplored avenues. For this reason, the present work focuses on the social representations linked to public actions to combat malaria, on the one hand, and on the other, on the social representations of the practices of the Gbagba populations, deemed incongruous and anti-ecological. Public action to combat malaria affects both the environment and living conditions (Gogognon Anges Patrick, 2012:19), taking into account variations between dry and rainy periods (Darriet Fréderic, 2007:13; Assako Assako René and Bley Daniel Simard Frederic, 2005:107). Public actions give the right to use mosquito nets (Carnevale Pierre and Vincent Robert, 2009 :250 ; Doudou Dimi Théodore and Doannio Julien Marie Christian , Konan Lucien Yao , Djouaka Rousseau , Toé Paré Léa , Akogbéto Martin, 2006 : 432), while the other, namely actions deemed incongruous and anti-ecological, stems from supernatural beliefs or values to which the population subscribes (Eric de Rosny, 2010 :106; Marcellini Anne, Turpin Jean-Philippe, Rolland Yannick et Ruffié Sébastien, 2000 :11; Massé et Benoist, 2002 :109; Jaffré Yannick et Olivier de Sardan Jean-Pierre. , 1999 cited by Gruénais Marc-Éric, 2001 :3 ; Harris, Memel Foté, Gadou, Dakouri Mathias, Yao, Y.L., Boua, A., Silué, C., Coulibaly, D., Amalaman, K., Djome, Y. and Solange, N.A., 1998).

A number of explanations emerge from this literature. In the light of these explanations, this article looks at recognized malaria control actions and incongruous malaria control actions as a relationship to social representations of the disease.

Considering these two aspects as an expression of social representations of malaria, the aim of this article is to understand the meaning of non-conventional control practices among the Gbagba populations. To this end, the study draws on Abric Jean-Claude's theory of social representations (1994:12). The postulates of this theory stipulate that: "all reality is represented, i.e. appropriated by the individual or group, reconstructed by its cognitive system, integrated into its system of values depending on its history and the social and ideological context that surrounds it" (Abric Jean-Claude, 1994: 12). According to Abric Jean-Claude, the study of the theoretical aspects of social representations enables subjects to understand and explain reality, acquire knowledge and integrate it into a framework they can understand, in line with their cognitive functioning and values (1994). A "social representation is therefore always a

representation of something (the object) and of someone (the subject)" (Jodelet Denise, 1989: 59).

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These objectives were achieved through the mobilization of Abric Jean-Claude's (1994:12) theory of social representations. In short, social representations fulfil several functions: the knowledge function, the identity function, the orientation function and the justification function. It was these different functions that served as the basis for formulating the objectives presented in the results. This made it possible to formulate the hypothesis of the study as follows: actions to combat malaria are the products of social representations associated with the disease of malaria.

1. Methodology

This study was carried out using a qualitative approach. In order to understand the meaning of the malaria control practices of health specialists and the local population (Gbagba), which appear to be the expression of social representations with multiple functions, the study uses a qualitative method. It thus mobilizes three data collection techniques : semi-structured interviews, observation and documentary research.

The study took place in Gbagba, an Ebrié village in the commune of Bingerville. The categories of people involved in the study were households with husbands or wives (primary target) and health and municipal actors (secondary targets). A total of 21 people took part in the interviews. These included 15 households (10 women and 5 men), 5 health workers and a representative of the town hall's information department. All were selected using a purposive sampling technique. Most of these people are directly or indirectly involved in malaria control activities. They therefore have a

relationship with the disease that depends heavily on their conception and actions in the fight against malaria, explaining their attitudes and justifying their therapeutic practices. It should also be noted that health workers were considered both as health specialists and as actors belonging to the target population. These social actors were therefore interviewed to understand their social representations of malaria control actions, explain control methods, and the forms of justification associated with malaria control.

The observational data-gathering technique, using an observation grid, enabled us to gain access to control practices not identified in the participants' discourse. Documentary research using reading sheets not only facilitated the collection of secondary data, but also contributed to the elaboration of the literature review. The choice of theoretical perspective and the presentation of its postulates were also made possible by this documentary research.

The survey took place from August 05 to August 29, 2023 in Abidjan, precisely in Gbagba in the commune of Bingerville. The interviews were made possible thanks to the collaboration of the health services of the Bingerville general hospital, from whom we asked for some latitude or authorization in order to gain the confidence of the households. These interviews (lasting no more than 25 minutes) took place in the households with the local population and at the hospital with the health workers.

Using Mucchielli Alex's thematic content analysis (1996:259), the data collected and transcribed onto Word files were processed and analyzed. In concrete terms, this involved highlighting the units of meaning in the respondents' discourse and grouping them into categories of meaning, thematized in the results presented below.

2. Results

2.1. Forms of local knowledge production for malaria control among the Gbagba populations

Two categories of actors emerge in terms of knowledge production among the Gbagba population. On the one hand, there's the one for whom the causes of malaria are diverse and not due to the mosquito. On the other, there is the view that the cause of malaria is linked to the mosquito, but not to environmental management. For this latter category of actors, the way in which the population organizes itself around environmental management may prove to be a means of mosquito proliferation.

In so doing, the first category, for whom the causes remain diverse, attribute a dual character to malaria. On the one hand, their discourse tends to assign malaria an

irrational explanation based on beliefs in a supreme being (God, sorcerers, ancestors). On the other hand, the sun and diet are commonly accepted as the main causes of malaria. To this end, M.M.J. asserts that: *"Malaria is not caused by mosquitoes, but we get it because of the sun, it also comes from the spells cast by sorcerers and can sometimes come from the gods, or even from what we eat, which is fatty".*

Indeed, according to this verbatim, the sun is one of the most important causes of malaria. This is because most of the activities we engage in increasingly expose workers to the sun. As the sun produces heat, it has an impact on human health, leading to the onset of malaria. As a result, exposure to the sun is tantamount to exposure to malaria. Translating this, the category of players whose sun is the primary cause of malaria explains how children contract malaria from the sun. Children who enjoy playing outdoors all day long, exposing themselves to the sun on a daily basis, easily contract malaria. As one mother put it: *"The children suffer a lot from malaria because they often play in the hot sun...".* This verbatim reflects the fact that not even food has been left out of the equation. It is also identified as a cause of malaria in this local population. Excessive consumption of fatty foods (oil) is thought to cause malaria. Thus, anyone who eats fatty foods is at risk of malaria.

Some respondents go even further, pointing out that malaria can also be contracted without exposure to mosquitoes, but rather through the effects of other existing illnesses. Malaria is then considered an opportunistic disease, as it takes advantage of certain illnesses such as headaches and fever to take hold. As Mr. A.K. puts it: *"Malaria takes advantage of other illnesses to establish itself; it's the other illnesses that push malaria into being".* This means that malaria is a product of other diseases. It is therefore a product of others.

As for the causes of malaria stemming from the irrational and the supernatural, a fringe of the local population remains convinced. Indeed, according to this category of people, repeated malaria attacks are a supernatural or even mystical sign. This is what M. E. translates here: *"What kind of illness is it that lasts like this and comes back every time? We give it medicine, but it never goes away"*. These comments are revealing of the forms of belief developed around malaria. It shows the irrational and supernatural aspects of this disease. If the logic behind assigning the causes of malaria to Gbagba is different from that of medically proven causes, it goes without saying that the therapeutic quest, and even control practices, are in contradiction with public actions. Thus, for this category of actors, anti-environmental practices (dumping household waste outside garbage boats, puddles around households following open-air dumping of water) cannot have an impact on the presence or even the frequency of the disease (malaria).

However, others believe that malaria is linked to the frequency of mosquitoes in the locality. As a result, they do not rule out the involvement of anthropogenic activities. In other words, although malaria is a parasitic infection transmitted by the female Anopheles mosquito, they don't rule out activities undertaken by the population in their immediate environment that cause the presence of mosquitoes. That said, they do link the causes of malaria to the environment. Indeed, the allegedly poor management of the environment by the Gbagba population creates a suitable environment conducive to the proliferation of mosquitoes around their habitats.

This behavior is therefore described as anti-ecological. As a result, talking about malaria requires a return to the way in which environmental management is organized, which is recognized as favorable to the proliferation of mosquitoes likely to cause malaria. To this end, Mrs. M. E. points out that: *"Here, when it rains a lot, that's when the mosquitoes appear and everyone gets sick. Especially when there are puddles of water and uncollected garbage around us; even when people come to spray in the neighborhoods because there are mosquitoes, they'll never finish. We're especially afraid for our children"*. These words show that the mosquitoes so often blamed for malaria are a product of poor environmental management. In other words, human activities are phagocytizing the environment, creating a favorable environment for the proliferation of mosquitoes that transmit the parasitic agents that cause malaria.

2.2. Collective action to combat malaria

The study reveals that malaria control strategies are not unanimously accepted by the Gbagba populations. Some are described as traditionalist, using local or medico-traditionalist knowledge (traditional medicine), while others use so-called modern or conventional knowledge (modern medicine).

Thus, the first to emerge from traditional medicine (traditionalists or medico-traditionalists) have a primary level of education. They adopt avant-garde strategies and measures to combat disease. These include the use of enema pears and decoctions made from leaves, plants and bark. For Madame K. J., *"To avoid getting sick or suffering from malaria, I use djeka leaves (the name of a traditional plant in Côte d'Ivoire) which I boil to drink and to wash my children. It's very effective, because it cleanses the body and prevents you from getting sick".* This explains the particularity of this category of actors and the interest they take in the power of the plants they have inherited. For the population, the use of medicinal plants is an asset that enables them to protect themselves from the disease. So, the effective way to protect themselves from malaria is to use plants. Moreover, this population believes that if symptoms of the disease are present, there is no need to use pharmaceutical drugs

for treatment. This is because the process of combating the disease in the case of prevention is similar to that of treatment in the case of cure.

As for Gbagba's people, who advocate so-called modern knowledge, they fall into two categories. The first category is accustomed to self-medication. They have a secondary or even higher level of education. They use not only pharmaceutical drugs, but also herbal teas. As one father put it: *"When I feel the signs of malaria, I buy medicines from the pharmacy, such as paracetamol to ease the pain and other tablets. They are very effective against malaria, and after three days of treatment I feel better".*

This shows how often people want to treat themselves using knowledge already acquired in association with modern medicine. As for the second category, they consider the use of impregnated mosquito nets to be the most suitable, in that it enables them to avoid the bites of disease-transmitting mosquitoes. As an illustration, Mr. B. A.: *"In my opinion, the best way to avoid being bitten by a mosquito that will transmit malaria is to sleep under an impregnated mosquito net, as recommended".* In addition to the use of mosquito nets, this category also considers it necessary to resort to hygiene measures by cleaning up the living environment (avoiding the stagnation of waste water and good housekeeping of household waste). As Mr. H. M explains: *"In addition to using impregnated mosquito nets, we need to have a clean and healthy environment, as this prevents many diseases such as malaria".*

In addition, this second category believes that, in the event of illness, one is entitled to go to a hospital and that the use of medication is only possible after being taken care of by health workers. That said, it is only after a consultation and biological examination of the patient that the doctor is empowered to decide on the treatment to be followed, if necessary. This supports Mr. H.'s statement that: *"When I'm ill, I go to hospital first, before taking any medication. I also have medical check-ups, and it's only when I'm told I'm suffering from malaria and on the doctor's instructions that I take medication. If my state of health requires an injection, the agent takes care of it and gives instructions for follow-up".*

2.3. Forms of justification associated with malaria control in Gbagba

Several factors account for the regularity or even recurrence of malaria in Gbagba. These include the population's living conditions, its level of knowledge and the irregularity of public policy actions.

2.3.1. Living conditions of the population

In Gbagba, according to the people interviewed, the population is continually exposed to malaria, even if they want to adopt or effectively apply the recommended measures.

Such is the case with the use of impregnated mosquito nets. Although the use of impregnated mosquito nets is well known as a recommended means of combating malaria, not all the population can benefit from it. In fact, according to the people of Gbagba, the growing number of people in Gbagba's different types of dwellings is swamping the use of mosquito nets as a means of control. The two- and three-room dwellings, which are supposed to accommodate a limited number of people on average, are exceeding their capacity. As a result, the beneficiaries of impregnated net protection are the people sleeping in the bedrooms. Meanwhile, those sleeping in the living room, who do not have access to mosquito nets, are exposed to mosquitoes, which means they are exposed to the disease. That said, the accommodation arrangements per dwelling facilitate the exposure of the inhabitants to mosquitoes, hence the frequency of the disease in the locality. Mr. H. M :

"Our houses are so small, there aren't enough bedrooms for everyone and people are forced to sleep in the living room, in these conditions how can we spread mosquito nets so that everyone doesn't get bitten by a mosquito and how can we avoid getting sick or having malaria? It's just not possible. Malaria will always exist in our different zones".

Thus, the low per capita housing capacity appears to be an ideological referent for attitudes to malaria control. This reduces part of the population to non-recommended practices. This justifies the use of insecticide bombs (Rambo, baygon etc.) and coils known as "mosquito", whose use replaces public preventive action. As K.M. explains:

"Mosquito netting doesn't do anything, and here we only have one bed and there are eight of us (08), so we can't use mosquito netting for all of us, and in any case, mosquito netting doesn't protect us from mosquitoes, whereas mosquito repellent or even insecticides kill mosquitoes, so I prefer to use them.

Furthermore, for economic reasons, many resort to self-medication. Indeed, the local population cannot afford the costs of consultation and biological examinations and resorts to self-medication. In fact, when these people are sick, they prefer not to go to health centers. They self-diagnose and carry out treatment to the best of their knowledge. This often leads to cases of serious health conditions resulting in the persistence of the disease or recurrence of these people.

2.3.2. Level of knowledge of the use of impregnated mosquito nets in Gbagba

Increasingly, we note a recurrence of cases of malaria despite the control actions in favor of the population. The level of knowledge of the local population is for good reason. Indeed, the population's knowledge of the use of certain materials recommended in the fight against malaria, particularly mosquito nets, remains problematic. That said, a number of people do not use mosquito nets as recommended or even as they should. Some respondents in Gbagba make differentiated use of the uses for which the mosquito nets were designed. Among the latter are those who use mosquito nets to cover windows and doors as a means of protection against mosquitoes. For others, instead of nets being used to protect against mosquitoes, they are used for other purposes. In this case, the mosquito nets serve as nets for the goal posts or as toilet and dishwashing sponges. It is in this sense that for Mr. K.L.: *"sleeping under these impregnated mosquito nets is like sleeping in a coffin".* The population refuses to comply with these recommendations because they consider this way of arranging the mosquito net as a death bed.

Moreover, social discourse suggests that malaria is not a serious disease that can cause loss of life. Indeed, people's knowledge of malaria reduces it to a simple disease that is nothing to worry about. This is reflected in the words of respondent K.S.: *"Malaria doesn't kill Africans".*

2.3.3. The reinterpretation of the irregularity of public actions as a form of justification for Gbagba

At Gbagba, the vegetation is largely made up of forests found on the edges of the lagoon and in the swamps. This vegetation is dominated by mangroves. According to respondent M.J.: *"In Bingerville, there's too much forest, and the presence of forest favors humidity, knowing that mosquitoes thrive where there's humidity; malaria can't disappear. That's why, despite all the government's efforts, malaria is still with us".* These words show that the vegetation is conducive to the proliferation of mosquitoes, thus encouraging the persistence of malaria. In other words, Bingerville's vegetation is an ideal breeding ground for mosquitoes, and thus contributes to the spread of malaria.

This situation should prompt public policymakers to step up their actions. However, there are irregularities in these actions. Indeed, according to the data collected, the distribution of impregnated mosquito nets as a means of combating malaria is carried out only once in two or even three years, whereas the impregnated net only lasts for 6 months. Also, activities such as awareness campaigns, disinsectisation and indoor spraying are carried out at irregular frequencies, without taking into account the

opinions of the population. This is justified by the following comments made by a respondent: *"The activities put in place by the authorities to combat malaria focus more on the distribution of impregnated mosquito nets and spraying, but it has to be said that these various actions do not prevent the disease from occurring or help it to disappear from areas".*

3. Discussion

If the people of Gbagba link malaria to the irrational or supernatural (God, sorcerers, ancestors), they have their reasons, which the Africanist conception has hardly ignored. Indeed, according to this Africanist conception, illness is first and foremost metaphysical. This is what Harris Memel Fote translates into the etiological approach, which in his view is generally dictated first and foremost by a metaphysical preoccupation (1998). For the author, "in traditional African societies, the etiological approach is generally dictated first and foremost by a metaphysical, negative preoccupation, itself inscribed in a lineage context where ancestors, sorcerers or enemies are said to be responsible for illnesses. In fact, the causes are sought for problematic illnesses, serious or persistent illnesses of more or less mystical origins, which are difficult to treat, requiring time, travel, financial resources and the consultation of a large number of therapists" (Harris Memel Fote, 1998).

In order not to remain within this approach and risk becoming trapped in a vacuum, it is necessary to extend this discussion to the symptomatology of malaria. The results show a varied knowledge of malaria symptoms. According to Agyepong Akuaet Irene and Manderson Lenore (1994:325), this variety of knowledge could be explained by the fact that in endemic regions, the populations affected by malaria have an empirical knowledge of the signs of the disease. This has enabled people to know the major signs of the disease. So the link between malaria, mosquitoes and environmental factors is not accidental. According to Ongore Dimas, Kamunvi Fabian, Knight Richard, Minawa A (1989:101) knowledge of the causes of malaria linked to mosquitoes and other environmental factors suggests "the existence of endogenous variation in terms of knowledge of malaria and participation in health education". For the author, the explanation for this plurality of malaria etiology lies in the fact that populations have received information about malaria, mosquitoes and the use of impregnated mosquito nets and insecticides. However, the local populations of Bingerville, particularly in Gbagba, who had their own representation of the disease, were unable to assimilate or incorporate this information received from the biomedical sector with their primary knowledge. It is in this sense that they can link this disease to God, sorcerers, ancestors, the sun and food.

This has given rise to new attitudes and practices. As soon as the first symptoms appear, malaria is treated at home, without recourse to traditional healers or doctors. The family treats the patient at home using available resources, before resorting to other sources of treatment outside the home. This process has also been described by authors such as Agyepong Akua Irene and Mandersonal Lenore (1994:327) and Ahorlu Collins, Dunyo Samuel, Afari Edwin, Koram Kwadwo, Nkrumah Francis (1997), for whom recourse to health professionals and their treatment is not immediate, but rather relegated to the background or even delayed until it is known that the illness can only be treated by professionals. This is reinforced by the ideas of Oni O.A, Oladele, O.I and Oyewole, I. K (2005) in Nigeria, Ettling in Malawi (1994) and Hausmann in Tanzania (2000). According to these authors, the widespread use of traditional treatments suggests a certain flexibility in services and treatment prices that can be adapted to the ability of rural populations to pay the fees.

While many attribute the cause of malaria to the sun, fatigue, diet and supernatural forces, it is all the more indisputable the involvement of the mosquito. To this end, for the WHO (2017: 2), the mosquito remains the main cause of malaria. Thus, for this organization, attributing the cause of malaria to something other than the mosquito attests to people's poor knowledge of this disease. In the same vein, Kouamé Téya, N'Guessan Gnagoran Kouakou Daniel (2019:209), link the ignorance and negligence of communities to the non-use of the mosquito net to the lack of knowledge of the operating principle of the LLIN (presence of insecticide and method of use) among the latter. However, the idea that people attribute the proliferation of mosquitoes to the environment (household waste outside garbage boats, puddles around households following open-air water dumping) is not dissimilar to the results produced by Assako Assako René Joly and Abom Dominique Meva'a, Tchuikoua Louis Bernard (2005:105) whose mosquito proliferation is attributed to natural factors (vegetation, soil, forest) and physical factors (hot, humid climate). Thus, on the question of the environment, hygiene and sanitation measures seem necessary. For this reason, anti-larval control, which also plays a part in environmental actions, is a method that consists of destroying the larvae of disease-carrying mosquitoes at their very breeding ground, using insecticide spraying (Gogognon Patrick Anges, 2012:19).

4. Conclusion

Malaria, considered a disease transmitted by the female Anopheles mosquito, has prompted a public awareness campaign aimed at the local population. This campaign was based on actions such as the distribution of impregnated mosquito nets, disinsectisation and house spraying, not forgetting sound advice on how to maintain a

healthy environment. All of which should be incorporated into the population's habits. However, these recommended actions have proved to be phagocytized in favor of other practices. This article has therefore apprehended this observation as a social representation of disease control actions. Drawing on Abric's theory of social representations (1994:12), the text was able to situate control actions as a social representation. In doing so, the article relied on a qualitative approach, collecting data from 21 respondents. This enabled us to arrive at the result of social representations associated with the fight against malaria in various forms.

Thus, the forms of local knowledge production in the fight against malaria have revealed two trends among the Gbagba population. The first is that malaria is the result of various causes other than the mosquito. The other is that the mosquito is the cause of malaria, and that environmental management can be a means of its proliferation. Thus, collective actions to combat malaria reveal, on the one hand, traditionalist ideas with local or medico-traditionalist knowledge (traditional medicine) and, on the other hand, modernists with so-called modern or conventional knowledge (modern medicine). In addition, several forms of justification associated with the fight against malaria, reflected in the living conditions of the population, the level of knowledge of the population and the irregularity of public policy actions, complete the analysis of the social representations that health specialists and the local population have of the fight against malaria.

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