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RESEARCH ARTICLE

Social Perceptions Influencing the Fight Against Covid-19 in Cote D'Ivoire

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Abstract:

In a context of new outbreak of the COVID-19 after a phase of control, the problem of influence of social perceptions on the epidemiological riposte arises in Africa and particularly in Côte d'Ivoire. Indeed, the main question is how social perceptions influence the organization of the fight against COVID-19 in Côte d'Ivoire?

The study is based on a mixed method that combines qualitative and quantitative approaches. The qualitative aspect requires the analysis of official, administrative, audio-visual, iconographic documents and the analysis of perceptions and influences. The quantitative aspect explores the daily statistics on COVID-19 and some aspects of the online survey. 90 health system actors were interviewed online and 76 social actors were interviewed in Abidjan at the sites of Cocody, Abobo and Yopougon in bus stations, markets and supermarkets. The technique of free choice to answer has been used online and the accidental technique of investigation and saturation for the number of social actors.

The results show that an organizational framework for the epidemiological riposte exists in Côte d'Ivoire. Statistics show that after six months, confirmation of new cases increases and cures occur as these cases are confirmed. Moreover, the margin of change for active cases and deaths has a downward trend. This score raises various perceptions. The health professionals perceive the organization of the fight as centralized, infiltrating initiatives at the operational level by excluding community health workers. The perception of social components reveals that the choice of international epidemiological fight design excluding local initiatives is a finding for those in power to benefit from the international community funds. All of these perceptions have a negative influence on the conduct of the epidemiological

riposte and community involvement such as slackening of the involvement of certain professional and social actors, non-respect of measures and lack of original national resilience.

Keywords: Social perceptions, Influences, epidemiological riposte, COVID-19, Côte d'Ivoire

Introduction

The new coronavirus disease (COVID-19) has appeared in Wuhan, China in December 2019 [1]. The population of Wuhan has undergone systematic confinement to contain the spread of the disease. The disease is transmitted via projections of microdroplets, up to two meters between two people, and often even before the onset of its symptoms [2]. The symptoms of the disease are characterized by fever, dry cough and tiredness; as well as other less common symptoms that may also appear in some people. These are aches and pains, nasal congestion, headache, conjunctivitis, sore throat, diarrhea, loss of taste or smell, rash or discoloration of the fingers or of the foot [3] [4].

Very quickly, this disease crossed the borders of Wuhan and those of China to make its appearance in Europe, America and Africa. It has infected more than 2.7 million people at the end of February 2020 [3]. Face to such a rapid spread and lack of a radical solution, WHO has elevated the "Chinese-origin" epidemic to a pandemic [5]. Several restrictive measures have been immediately taken by Western countries hit hard by the intensity and dynamics of air transport. These measures concern first the suspension of commercial flights and second, the declaration of a state of emergency, curfews and the imposition of barrier measures in all segments of civilian life. Many events have been restricted or canceled to limit the spread of the disease [6]. The reason for these measures is that historically sport, religion, music and other mass gatherings have been the source of infectious diseases that have spread globally [7].

On March 11, 2020, the first case of COVID-19 appeared in Côte d'Ivoire, especially in Abidjan, the economic capital. Since then, this megalopolis has become the epicenter of the pandemic in the country. Despite an increased epidemiological fight modeled on the solutions of the West, the number of infected people has entered an upward graph with its share of deaths. This sad observation is in the image of what prevails in all African countries with 1,637,989 cases of contamination out of a total of 40,076,184 in the world, or 4.09% in October 24 [8]. In Europe and North America, the most affected areas, the fight has seen a strong involvement of the social sciences like the medical and biological sciences in informing the decision-making of confinement and progressive deconfinement through activities of operational research. On the basis of these studies, forecasts of new outbreaks have been made after an episodic decline in contamination. Indeed, a new wave of contamination at the beginning of this last quarter of the year 2020 causes in some Western countries including France the resumption of state emergency measures and localized curfew.

It is in this context that raises the issue of the influence of the perceptions of professional and social actors on the fight against this pandemic in connection with the need for the contribution of the Social Sciences. This makes it possible to systematize community involvement in the organization of the epidemiological control. In this perspective, the fundamental question is how do social perceptions

influence the organization of fight against COVID-19? This consists in explaining, first of all, how the evolution of statistics reflects the complexity of the fight against COVID-19? Then, to analyze the social perceptions of the organization of the fight against COVID-19? And finally, to show the influences of these perceptions on the organization of the epidemiological response?

The overall goal is to demonstrate the effects of social perceptions neglect on the impact of COVID-19 and the organization of the epidemiological riposte. The assumption underlying this goal is that the effects of social perceptions neglect are linked to the lack of community involvement in the epidemiological response.

Also, we will try to shed light on this situation by first presenting the evolution of the fight against COVID-19 in Côte d'Ivoire, then by noting the social perceptions of the epidemiological fight and finally, by describing their influences on the organization of the fight.

Materials and method

This point shows the investigation site and population, the data collection technique and the theory of analysis.

Investigation site and population

The study has been carried out in Abidjan as the epicenter of the pandemic and particularly in the districts of Cocody, Abobo and Yopougon. Cocody is the district of the national upper middle class and by far the most affected municipality. Abobo and Yopougon are the largest working-class neighborhoods in Abidjan. They therefore run the risk of disease outbreaks due to higher social vulnerability, poverty and overcrowded housing [9]. This is characterized by the difficulties in enforcing the barrier measures. The investigations in all the three districts have taken place in markets, supermarkets, intercommunal bus stations and near hand washing facilities.

Data collection technique

This is a mixed study, that is, it combines quantitative and qualitative approaches. The quantitative aspect is characterized by the exploitation of daily statistics on COVID-19 in Côte d'Ivoire [8]. The qualitative aspect of the study is analytical and conducted on the basis of official documents, administrative documents, audio-visual and iconographic documents. It is supplemented by investigations carried out over a period of 06 months (from April 2020 to September 2020) with 166 people through in-depth individual interviews with authorities and semi-structured interviews conducted in places where crowds gather and online. Online interviews have been conducted with national members of the Hub Cop-ci network from its google group and discussion portal on “The collectivity”. These two networks constitute digital platforms for sharing knowledge and building collective intelligence on the health system in Africa. The target population in this network is 250 people (stakeholders in the health system, researchers, students) acting directly or indirectly in the fight against COVID-19. 90 people freely responded to questions on the digital platforms of the

Hub Cop-ci network. The Table 1 below gives the characteristics of the stakeholders.

Table 1: Distribution of Stakeholders by Profession

Profession	Number	Percentage %
Health sociologist	15	16.60
Nurse/Midwife	10	11.10
Doctor	30	33.30
Health economist	15	16.70
Pharmacist	5	5.60
Humanitarian	5	50.60
Student	10	11.10
Total	90	100

Source: Online Survey from March to June 2020

The professions of the 90 stakeholders are: Health sociologist, Nurse/Midwife, Doctor, Health economist, Pharmacist, Humanitarian and Student. The dominant groups among the stakeholders are doctors with 33.30%, health economists and sociologists of health together constituting 33.30%. The other equally important occupational groups account for 33.4%. Among these people, 55 say they are directly involved in the fight against COVID-19, i.e. 61.1%, and the 35 others are not involved, i.e. 38.9%. The levels of intervention of the stakeholders directly involved are the central level, the decentralized and operational level (health district and health facilities) and the community level. The different types of stakeholder interventions are listed in Table 2.

Table 2: Types of Interventions According to Groups of Stakeholders

Stakeholder groups	Types of intervention
Central level	- Participation in the development of a national strategy - Coordination of prevention activities, management of positives and contacts - Participation in national decision-making
Decentralized and operational level	- Coordination of epidemiological control committee - Ensure compliance with barrier gestures - Awareness from local radio stations
Communitarian level	- Ensure compliance with barrier gestures - Mass public awareness

Source: Online Survey from March to June 2020

The field study has involved 05 resource people, members of the steering committee. They have benefited from in-depth individual interviews in informal settings. 71 men and women, managers of supermarkets, markets, intercommunal bus stations, security agents responsible for enforcing measures (police and security guards) and users (street and market, customers) have been interviewed as part of the inquiry. For the target of managers and security guards, the information saturation has been observed in the stakeholders of 20 people; for the leaders of groups of traders and transporters, the saturation is 16 people; and for

the users of transport and commerce, 35 people is the saturation level. The choice of interviewees is made according to the accidental technique.

Theory of analysis

The analysis of the data is based on resilience theory [10] [11] [12] [14 [14]. In the context of this study, this theory permits to focus on the capacities of countries, peoples and communities to develop internal reaction mechanisms against COVID-19, where for once the planetary event has surprised the whole world who was not prepared for it. So there was no predefined solution that had to be adopted.

Results

The result of the research is organized around the situation of COVID-19 in Côte d'Ivoire, perceptions related to the epidemiological riposte and their influences on the fight for anti-COVID.

Situation of COVID-19 in Côte d'Ivoire

The situation of COVID-19 in Côte d'Ivoire revolves around the organizational framework for the fight against COVID and national statistics relating to this fight.

Organizational and monitoring framework for Anti-COVID

In Côte d'Ivoire, the fight against COVID-19 is structured around a decree which provides an organizational framework for the prevention and fight against the pandemic [15]. A second decree provides for an operational monitoring committee [16]. On the basis of these two orientation documents, the document riposte plan against COVID-19 is elaborated [17].

The organization of prevention and control provides for the National Security Council, a steering committee, a health watch committee, an economic watch committee, the local operational coordination committees and the operational monitoring committee.

The National Security Council is the supreme decision-making commission. It is chaired by the President of the Republic. It includes the Prime Minister, the requested Technical Ministries and the great commands of the army and the police. The decisions of the National Security Council are translated into decrees or ordinance.

The steering committee is chaired by the Prime Minister. It includes the Ministers responsible for defense, health, higher education and research, territorial administration, security, agriculture, planning, transport, the economy and finance, health and sanitation, commerce, communication, hydraulics, budget, and human rights. The steering committee is responsible for taking measures to guarantee the safety and health of the populations face to COVID-19, to define the strategic guidelines and riposte policies, to ensure the implementation of the decisions of the National Security Council, ensure

diplomatic consultation with internal and external participants, coordinate the activities of health and economic watch committees, adopt the action plan for strengthening the health system, adopt the health care plan action for the fight against COVID-19, to periodically inform the National Security Council on the evolution of the pandemic, and to mobilize the technical, material and financial resources for the implementation of the action plan of the fight against COVID-19.

The health watch committee includes the representatives of technical ministers who are members of the steering committee, to which are added the representatives of certain autonomous structures. This committee ensures continuous monitoring of the evolution of the COVID-19 pandemic, coordinates all health operations related to COVID-19 through the identification and care of patients. It also makes the identification and isolation of people suspected of carrying the virus, the management of the supply of equipment and consumables necessary to fight the pandemic. The health monitoring mission involves the National Institute of Public Hygiene, the Pasteur Institute, the national public health laboratory, the emergency medical aid service (SAMU), the national blood transfusion center, the tropical infectious diseases service, the new public health pharmacy, the Directorate of Public Hygiene, the Directorate of Hospital and Community Medicine, the General Directorate of Police and the superior command of the gendarmerie.

A health action unit within the health watch committee is responsible for guaranteeing an immediate medical presence and assistance in healthcare establishments and with the populations, and ensuring the application of measures to prevent the spread of COVID-19, ensuring the implementation of health security interventions, management and transfer of reported cases, assessing needs and facilitating orders and the provision of care units, ensuring permanent information and awareness through the call center and making a periodic report to the Chairman of the Monitoring Committee.

The economic watch committee includes multi-sectorial technical Ministries .The role of this committee is to assess and submit for validation to the steering committee the cost of operations related to the fight against COVID, to define the financial procedures allowing the diligent management of expenses related to the charge of the pandemic, to assess the impact of the crisis on major investment projects, budget revenues and overall financial balance, short, medium and long-term economic activity, to conduct consultations with the private sector, to guarantee the supply of markets, to propose a post-crisis recovery plan to the steering committee.

The local operational coordination committees are constituted of regional and departmental level of deconcentrated structures of technical ministries constituting health and economic watch committees. The local committees are responsible for organizing and implementing the directives of the steering committee, coordinating at the local level all actions in the field, mobilizing at the local level the human, material and financial resources necessary for the fight against COVID-19, to periodically assess the local intervention system, and report periodically to the health and economic watch committees.

The operational monitoring committee of the COVID-19 plan includes representatives of ministries and structures participating in the steering committee. This committee is responsible for: monitoring and evaluating the coordinated implementation of the response plan; prepare the daily dashboard of all the indicators from the sectoral operational coordination units; to identify the difficulties encountered and make proposals for corrective measures.

In total, the Côte d'Ivoire COVID-19 Response Strategy focused on a centralized and vertical organization. It is characterized by a very active central level and an operational level (regional and departmental) in a waiting position. Moreover, Abidjan declared epicenter of the pandemic is the focus of response initiatives through its isolation and construction of sampling and containment centers. Consequently, the suspicions of cases within the country are immediately referred to Abidjan in terms of the sub-equipment of regional and departmental health infrastructures. However, apart from the isolation of the greater Abidjan, the National Security Council has taken respectively state emergency measures, curfews, border closures, and mandatory wearing of masks throughout the national territory.

Despite all of these actions, COVID-19 still remains and the state of Côte d'Ivoire is not immune to a deplorable outbreak. It is therefore appropriate to analyze the consolidated national statistics for the first six months of the disease in Côte d'Ivoire.

National statistics on COVID-19

On October 24, 2020 [8], the world had 40,076,184 confirmed cases of COVID-19. In this number, Africa has 1,637,989 cases of contamination and weighs 4.09%. In Côte d'Ivoire, on a sample of 180,800 cases, there were 20,348 confirmed cases, 343 active cases, 19,885 cured cases and 120 deaths on the date indicated. The national statistics relating to the 06 months preceding October are those of contamination, healing and death. They are summarized in Table 3.

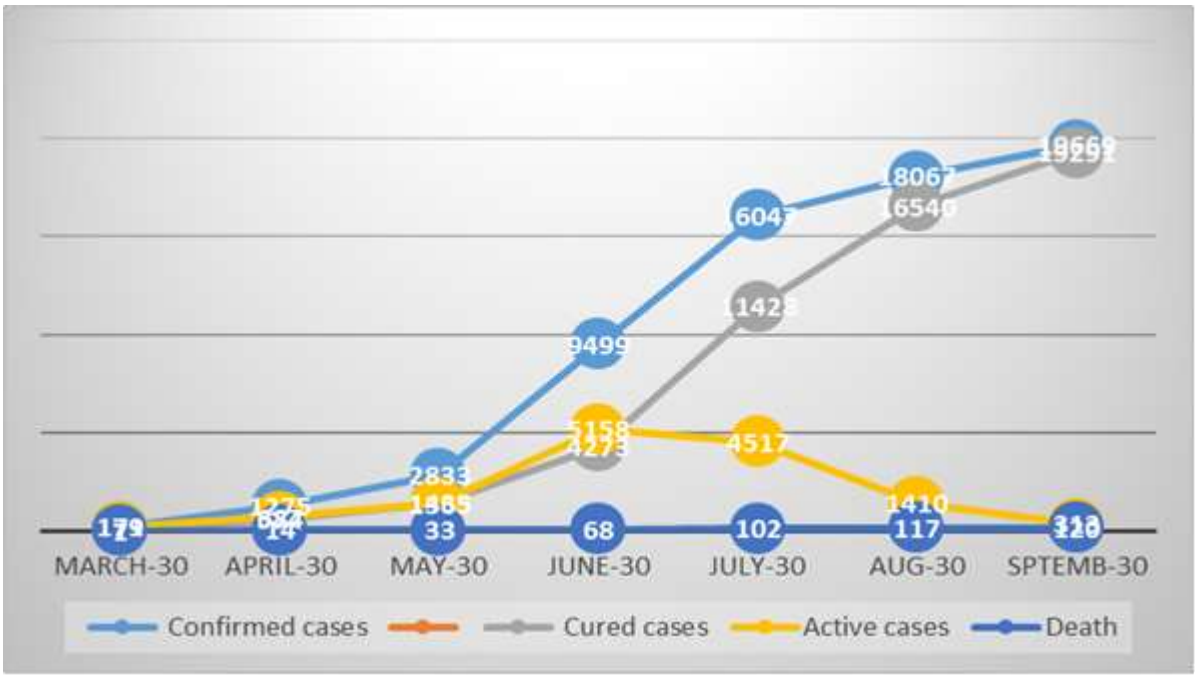
Table 3: Figures for COVID-19 in Côte d'Ivoire from March to September 2020

Dates	Confirmed cases	Cured cases	Active cases	Death
March-30	179	7	171	1
April-30	1,275	574	687	14
May-30	2,833	1,435	1,365	33
June-30	9,499	4,273	5,158	68
July-30	16,047	11,428	4,517	102
Aug-30	18,067	16,540	1,410	117
Septemb-30	19,669	19,291	313	120

Source: Consolidated Data from the Ministry of Health

The table shows that the number of confirmed cases has increased steadily from March (179 confirmed cases) to September (19,724 confirmed cases). The number of people declared cured has also increased over the months. From 7 cured out of 179 cases at the start of the pandemic in March, the number has reached 19,241 on September 30, 2020. The low number of deaths (120 after 6 months), compared to 19,724 confirmed cases and 19,241 cases of recovery, shows the effectiveness of epidemiological control. This attests to a dexterity with respect to the organization of screening and the effectiveness of the treatment adopted. The active cases have reached the peak on June 30 (from 171 to 5,158 cases) to drop to a few hundred on September 30 (from 5,158 to 313 active cases).

The graph 1 below shows how it looks.



Graph 1: Evolution Graphs of the Fight against COVID-19 in Côte d'Ivoire from March to September 2020

The graphs of the confirmed cases and the cases of cure are ascending simultaneously over the six months. This means that at the same time that new cases of contamination are discovered, healings take place with the treatment protocol put in place in Côte d'Ivoire. On the other hand, after an upward trend in the graph of active cases until June 30, a descent takes place from that date until September 30 despite the increase in samples taken.

In addition, the death graph runs alongside the x-axis because of the low level of numbers recorded. So at the same time that each month registers new confirmed cases, it also registers new cases of cure.

Otherwise, the graph of active cases peaks on June 30 and fell towards a downward movement until September 30, settling at the number of 313 active cases. This reflects a declining contamination margin throughout the first half of the health crisis.

Finally, the gradual stabilization of confirmed cases and cured cases, then the reduction of active cases and control of mortality show the good performance of the epidemiological control characterized by the effectiveness of medical management. Conversely, the risks of an epidemiological outbreak are mentioned by experts in the fight and even by certain components of the population. For the experts, this will be due to the relaxation in the control and in the observation of measures within the population. To confirm this explanation, it is necessary to know the perceptions of preventive measures and support initiatives at the level of the actors of the health system and the populations.

Perceptions of the epidemiological fight against COVID-19

The perceptions are those of the actors involved in the health system and the populations confronted daily with the conditions of contamination with the

disease with the new Corona virus. These perceptions vary and depend on the position of each actor in the fight against this pandemic.

Perceptions of health system actors

Regarding the organization of the fight against COVID-19 in Côte d'Ivoire, the majority of the actors questioned (60 people representing 66.75%) affirm that it is acceptable against a minority (30 people or 33.35 %) who considers it bad. Those who find the organization acceptable rely on a perception that highlights the decisions made and implemented by the public authority. These are those relating, among other things, to the state of emergency, the closing of borders and the requirement of barrier measures for the populations. These people approve of the state's anticipatory initiative. The respondent No 67, Doctor at the central level justifies his positive opinion: "*We must act quickly, to prevent the disease from attacking other areas of the country* ".

The respondent No 13, Health economist, also at the central level: "*These provisions are unusual for a disease, but because of the rate of contamination, these measures are necessary*".

On the other hand, unfavorable perceptions deplore the measures of curfew, of confinement of Abidjan (economic capital), of the reduction of participants in worship to 50 people while the controls in stations and markets have remained approximate. They also deplore the opening of classes and the slackening of the control of preventive measures without prior socio-anthropological study.

The respondent No 11, student: "*There is an inequity, they go after places of worship and they say nothing about the market chaos* ".

The respondent No 16, Social sciences actor: "*The measures are not sufficient and effective the measures are not sufficient and effective*".

This set of decisions is seen by these actors as an expression of Western mimicry in the management of the crisis when the two spheres do not have the same rigor of monitoring. In this same group of actors, others deplore the lack of systematization of community involvement. The respondent No 06, a humanitarian says: "*Community relays are forgotten with the real targets* ".

The argument is based on the idea that the methods of choosing community targets are not known in advance and if they are, they remain questionable because of the logic of mechanical solidarity guided by feelings of belonging to the same political party, religion or region. In addition, politicians' interference with the campaign to distribute protective equipment contributes to the misperception. The respondent No 02, a midwife: "*Politicians grabbed the various protective devices to share with their activists*".

Otherwise, the medical actors who perceive the fight negatively emphasize communication deficit between the central and peripheral levels, while the brilliant actions of politicians are highly publicized. The argument of the respondent No 07, Doctor of health District shows it: "*We have no information; they tell us to wait; our protective equipment is delayed; everything is done in Abidjan* ".

This lack is seen from two angles, in particular from the angle on the one hand, of the chain of command between the national monitoring committee and the health districts and on the other hand, from the angle of the relationship between the heads of districts, health workers and field workers in health structures and in the community. Finally, the comments of professionals reveal that the mode of choice, use and remuneration of human resources (doctors, nurses, midwives, social workers, Community Health Workers) in the health

district causes their absence in the community organization of the fight. The respondent No 71, male nurse in a health District, report: « *ASC intervention will result in an additional cost*".

When it comes to perceptions of hygiene and social distancing measures, all the actors in the health system are unanimous on the fact that these measures are welcome. However, some deplore the lack of a prior reflex in public authority. Indeed, they accuse the State of having slackened in monitoring the civic behavior of populations long before the onset of the health crisis.

As for social distancing measures, perceptions are mixed among the majority of community, humanitarian and social science researchers. They perceive the communication around barrier measures as misguided. The respondent No 83, Social sciences actor: "The communication is rigid and not very participatory because the relays do not have the method to make accept these measures".

The respondent No 19, a humanitarian denounces wrongdoing: "*Some relay people keep with them the objects (seal, gel, masks) to be made available to the community*".

Finally, the described situation and arguments deplore the absence of real local actions involving community relays trained in the system of raising awareness as well as that of operational studies of a socio-anthropological nature for an effective monitoring of reluctant or unwilling behavior acceptance.

Perceptions of population

These are the perceptions of the managers, security guards and the users of supermarkets, markets and bus stations.

Concerning the organization of the fight, some managers and security approve the systematic wearing of masks and the washing of hands. A supermarket manager in Cocody 57 years old says: "*I agree with the measures; I have the device and with the screening officer I ensure compliance with the measures*".

All the users find it very restrictive. The excuses they put forward in order to get rid of the compulsory wearing of masks are numerous. A young street saleswoman in Abobo, 18 years old, says: "*The mask is suffocating; I can't wear it all day*".

A woman, customer of super market in Cocody, 54 years old, adds: "*It makes me tired ; I have delicate health because of asthma* ".

An adult, traveler in Yopougon bus station, 46 years old, justifying the wearing of the mask on the chin: "*I have my mask on the chin because of a problem for breathing; I will wear it in the bus*".

A second group of users who do not have a mask and who have altercations with the security guards, perceive this measure of compulsory mask wearing as an initiation of diversion from the governors to justify the use of funds disbursed by the partners funds for the fight against COVID-19. A student, customer of super market à Yopougon, 28 years old: "*They make us wear masks to film ourselves and show whites how well they use their money* ".

For this raison, some of them say they have not benefited from the distribution of masks, others add to this reason that they do not have financial means to regularly acquire masks. A housewife, customer at the market in Abobo, 48 years old, adds up: "*When people hand out masks, we don't have; they know to whom they give*".

A third group bluntly questions the existence of the disease in Côte d'Ivoire. They perceive the disease as not being able to thrive in their environment. A

market saleswoman in Abobo, mother of 05 children, 46 years old says that: "*It is a disease of white*".

Another adult, manager of bus station in Abobo, 50 years old, adds: "*We have the sun year; the virus can't survive here; this disease is not for us* ".

They also put in question the mode of transmission described and claim to have local solutions to not be confronted with this disease. They therefore refer to drugs from the African pharmacopoeia.

All this engender an uncivil behavior exasperated by the disaffection among the popular mass of official speeches. In fact, several people pretend not to believe the statements of the leaders and refuse to follow the national press in their role of relay. This limits the effects of awareness rising through public media. A saleswoman in the market of Abidjan, 33 years old: « *They speak in television to afraid us, they don't show the patients* ».

Otherwise, the state is accused by those questioned of wanting to increase the rate of people tested positive by increasing the number of sampling centers in the working-class neighborhoods of Abidjan. In Yopougon, for example, the construction of a sampling center sparked a popular uprising fueled by accusations of making this neighborhood the epicenter of the pandemic in Abidjan. The populations evoke political reasons to justify themselves.

A young costumer of supermarket in Yopougon, 25 years old explain the reason for the destruction of the screening center opened in Yopougon: "*People don't want the center because they say that the majority of the population of our neighborhood is for the political opposition, so the government wants to contaminate them* ".

As for the Abidjan isolation measure, it is seen as improvised and the entry checkpoints in the city of Abidjan are seen as places of manifestation of corruption. Various testimonies are proof of this.

An official, traveler in Yopougon, 33 years old: "*During the isolation of Abidjan, convoys to bring workers and students back to their workplaces inside the country were infiltrated by travellers*".

A bus driver in Yopougon, 47 years old: "*The check points were bypassed with the complicity of some security guards for money; some conveyances of personnel exempt from control have been converted into smuggling activities with the complicity of screening officers*".

Another bus driver in Abobo, 53 years old: "*In the transport companies, the cost of transportation is increased for those who do not have passes; it allows us to interest law enforcement to obtain the passage of the check point without the pass* ".

For some, convoys intended to bring workers and students back to their workstations are infiltrated; the corridors are bypassed with the complicity of certain security agents in return for money; some personnel transport vehicles exempted from controls have become smugglers with the complicity of the agents. With the transport companies, there is the prepayment of fees for the purposes of profit-sharing for the police to obtain passage of the corridor without the pass of the police force at the various check points.

At the level of social distancing, the decision to observe a distance of at least one meter between individuals, to avoid gatherings of more than 50 people and to avoid handshakes are seen as measures of increase of poverty. They cite unemployment as the reason and further assert that markets and stations are places of survival for them.A traveler, at the bus station in Yopougon, 39 years old says: " *If we respect what is said, we're not gonna eat and feed our families* ".

These assertions are corroborated by the fact that where in places of worship the distancing measures are scrupulously respected, it is difficult to do the same in public transport and in markets.

Regarding the perception of the community approach, among those questioned, there is questioning of community targeting. They disapprove of the way in which the targeting of communities and community leaders is done, citing a problem of morality and honesty at the level of the interlocutors. According to them, several buckets, masks, liquid soaps and hydroalcoholic gels have not reached the recipients. An opinion leader, In bus station, Yopougon, 43 years old, denounces this situation:

"*I've never been invited to a kit delivery ceremony; we don't know who goes there; and when they take things, they keep them to themselves* ".

On the other hand, respondents maintain that the support fund initiative granted to certain households is discriminatory. Rightly or wrongly, they evoke distribution in networks of political affiliation or family or religious affiliation. A widow in Yopougon, 58 ans, says: « *They distribute the money to their parents* ".

All the problems linked to different perceptions inevitably have influences on the future of the fight against COVID in Côte d'Ivoire.

Influences of perceptions of the fight against COVID-19 in Côte d'Ivoire

The influences are related to the epidemiological riposte and the organization of community involvement.

Influences on the epidemiological riposte

The first influence is that outside of Abidjan, the epicenter of the pandemic, the medical staff inside the country is not motivated to do the task for obvious reasons which are the late receipt of work equipment for the fight against COVID and the slowness in the operationalization of the directives. This lack of motivation is also linked to the many questions linked to the real beneficiaries of the COVID premium among health personnel. This has been a trade union concern which has cast the shadow of a disruption of the struggle throughout the national territory including Abidjan.

The second influence is the absence of innovative initiatives in the fight at the level of health areas. Indeed, the health personnel in the various care structures adopt an attitude of waiting. They limit themselves to the minimum action. For most of them, they condition the slightest awareness-raising initiative on the immediate availability of funds for which they affirm the availability at a higher hierarchical level. At the same time that they complain about the opacity at the level of the District and the health region, the animators of these two levels also complain of the central level not being able to sufficiently decentralize the fight. The words of a District Chief Medical Officer are evocative on this subject. He says this:

"*Admittedly Abidjan is the epicenter of the pandemic and it deserves to have the big share of the preventive control budget, but the fact of leaving the districts of the interior without much means forces us to give up.*"

This situation requires that the operational units that are the health districts be strengthened so that they respond promptly to the needs of the first-contact

health establishments in terms of active participation in the fight against the pandemic.

The third influence is the inaction of community health workers in the fight against COVID in Côte d'Ivoire. In the Ivorian health system, community health workers are people (men and women) co-opted by health personnel from the population of the health area to be community relays. Their roles are to provide an integrated package of preventive, promotional, basic curative and supportive services under the supervision of health personnel and are responsible for sensitizing the community on health issues [18]. This staffs, suffering from a lack of clear status in the national health system, are certainly important in the fight against COVID-19, but are not put on mission by those in charge at the operational level. Neither is this outreach action carried out by sworn personnel, whose tasks in providing medical care are often enormous.

The fourth influence is that apart from the regular communication of medical statistics, there is no study of national scope (inquiry, exploratory study, studies of social risks, inquiry of evaluations) which can lead to scientifically relevant analyzes and guide decisions for the country like the developed countries. These studies should have enabled a contextualized organization of the awareness campaign as the pandemic progressed.

Influences on community involvement

Community involvement is an action from the community. It is either generated by public authorities or by citizen action by the populations. The influence of different perceptions on community involvement in the fight against COVID-19 is found at several levels. First, in the context of the targeting of community leaders to encourage the commitment of their peers in the fight, some people put on mission by the public authorities do not meet with unanimity among the populations for whom they are solicited. Apart from the customary chiefs and religious leaders, the youth and women leaders invited are not unanimous because of the multiplicity of associations of young people, women and professional groups who would all like to be associated. Thus, associations not officially invited dissociate themselves from the action of those committed to raising awareness. An interlocutor presenting himself as a neighborhood youth manager affirms this:

"*We weren't even included in the awareness meetings and the distribution of things; they called the young people from their parties and then they make do with them; they cannot come to us.*"

Then, perceptions trigger attitudes of derision among populations. These put forward the arguments of their immunity by their physical vigor in the tropics as opposed to fragility in temperate zones. The populations within the communities assimilate all the people attached to the scrupulous respect of barrier measures and hygienic behavior recommended to people weakened by their Western way of life even if they are not in temperate zones. In their attempts to derision, they cite as adjuvants to their immunization the advantage of the climate and the sun, the positive effects of the consumption of the local pepper and the availability of herbal teas and ingestions through the community pharmacopoeia. A mother who sells herbal tea interviewed at the Abobo market expresses herself in these terms:

"*We don't know corona here, that's white disease; if you take my medicine, you can't get that disease.*"

This set of attitudes of derision confirms the behaviors that negate the existence of the disease in areas with high human density with a low standard of

economic life for some and others in a precarious situation. In addition, the evolution of divine retribution occasions perceptions of other people within communities. They are affirmative that the disease of COVID-19 is a consequence of the chemical manipulations of virus strains and bacteria by scientists.

Finally, the influences notified contrast with the weak evolution of the rate of contamination. This contradiction revealed the contribution of informal initiatives relating to community resilience and which is not notified by the authorities. This established fact feeds the discussion relating to the present work.

Discussion

The discussion revolves around the organizational framework and operational monitoring, the inaction of community health workers and community involvement.

At the level of the organizational framework and operational monitoring

In Côte d'Ivoire, the lack of operational research results on the perceptions, attitudes and behaviors of populations compromises effective monitoring of the pandemic. It is evident that many decisions are made on the basis of empirical observations and medical and police interpretations. Apart from the medical sciences for the taking of samples and the biological sciences for research on molecules, the social sciences in particular Sociology and Anthropology seem not to have been called upon for an effective follow-up of the evolution of the behavior of the populations and propose contextualized solutions.

While the systematic confinement of Abidjan, the state of emergency, and the curfew throughout the national territory remain emergency security measures which only politicians deem necessary; the lifting of these measures, the installation of voluntary screening centers, the postures of the populations face to the various barrier measures have not been really subjected to social science documentation. This posture is also that of most African countries which have systematically followed the measures as they come from WHO and Western countries.

Regarding the inaction of community health workers in the fight against COVID-19

Community health workers are absent in the fight in Côte d'Ivoire. Despite the existence of a strategic community health plan which provides for a statute for the latter, its effective implementation is still problematic. Rather, it is the health professionals who are specialized in community health who respond to the call and who relativize the issue of using community relays. Also, they theoretically promote community approaches without the actual solicitation of community health workers as a relay to their peers. Moreover, the operational managers whom they are supposed to support raise the problem of their remuneration by excluding the voluntary nature of their mission. This

disintegrates the maintenance of interactions between local entities and the health sector in order to strengthen the resilience of the health system [19]. The most obvious intermediaries between local entities and the health system are community relays. But in Côte d'Ivoire, the inaction of these relays is the missing link in the fight against COVID-19. Only a few NGOs are involved in voluntary action at the national level.

On the other hand, in the French territory of Guyana, the participation of community relays is very useful for the local population to adhere to what is proposed to them [20]. Their actions are rather voluntary, contrary to the expectations of community health workers in Côte d'Ivoire.

At the level of community involvement

Community involvement in the fight against COVID in Côte d'Ivoire is hampered by the way in which local entities are appointed to introduce the fight mechanisms within the community. The people identified to represent local entities are often contested. According to the recommendations of the WHO and UNICEF, these are local authorities, religious leaders and Non-Governmental Organizations (NGOs) as well as community groups, such as groups of women, young people or scouts [19]. This prevents better targeting of public health measures to prevent socially vulnerable communities from becoming COVID-19 hotspots like the United States where standardized criteria for determining states with the most vulnerable communities are established [21].

Likewise, the derision manifested in the communities is not specific to Côte d'Ivoire. It is prevalent for other African countries and even seen in Western countries. Indeed, in Winnebago County, Wisconsin, the perceived severity of the disease is low; perceived responsibility towards others; peer pressure; and exposure to misinformation, conflicting messages, or opposing views regarding masks have been identified as behavioral factors that may influence the risk of exposure to COVID-19 in young adults [22].

In Côte d'Ivoire, despite criticism, reluctance and uncivil behavior such as indiscipline, a manifest commitment of the populations is visible through the local resiliencies. This are characterized by the use of traditional therapist solutions, the adoption of preventive solutions, the consumption of herbal teas and leaves (Artemisia, neem leaf, etc.) with a high dose of quinine. The populations faced with one or more symptoms of the disease make a mixed treatment (traditional and modern). Despite of this reality, the contribution of traditional therapist solutions are not clearly mentioned in the national resilience. This is the case in most African countries. Conversely, Madagascar has formalized such a resilient recourse with the help of its national laboratories. The country has made available to its population the preventive “miracle” herbal tea against COVID-19 called ‘COVID Organics’ or CVO. This herbal tea has just been available in a capsule [23].

Conclusion

At the end of this study, it is admitted that in Côte d'Ivoire the epidemiological riposte against COVID-19 is drowned in a holistic posture. Indeed, this poster only works on the administrative pillar with vertical

interventions. The perceptions relating to this organization call into question, on the one hand, the absence of horizontal action implying the simultaneous intervention of actors at each level of intervention in the fight and, on the other hand, the absence of include community health workers in the control system.

The popular pillar made up of volunteer actions is not visible because of the political recuperation which makes even attempts at voluntary initiatives made by local NGOs be carried out with the indifference of the population.

The community involvement pillar, in its aspect of commissioning community relays, trained in basic care procedures as provided for by legal provisions, is non-existent. The other aspect relating to the contribution of traditional therapists reveals on the part of the authorities an affirmation of interest in their contribution. At the same time that they wish to take them into account in the treatment protocol, they oppose scientific criteria to the solutions of the latter through the emission of doubts on the toxicity and the dosage of dietary and various products proposed. Thus, these contributions originating in the communities remain marginal in the description of national resilience in the fight against COVID-19.

Ultimately, the systematization of national resilience in terms of epidemiological control must be based on the results of national research of a medical, biological and socio-anthropological nature in order to objectively take into account all the national evidence in endogenous research for solutions to the health problems.

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