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Study of the Future of those Recovered from COVID-19 from Treatment centers in Guinea from March 2020 to January 2021

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Abstract

SARS-CoV-2 appeared in December 2019 in Wuhan, China. The Guinean Government has taken important measures since the notification of the first case on March 12, 2020, in particular the follow-up of the recovered. The objective of this study was to describe the health and socio-economic problems faced by those who recovered from COVID-19 in Guinea. This was a descriptive cross-sectional study by simple random sampling in the five communes of Conakry and the regions of Kindia, Labé, and Kankan. Up to 330 COVID-19 survivors responded to the survey, 99% of whom were from the urban area. The male gender represented 70.3%, and the 19-38 age group was the most represented (61.82%). Pupils, students/ teachers, health personnel, and academics respectively represented 10.91%, 17.58%, and 62.73%. In this study, 70% were married against 28.18% single, and 8.79% moved after leaving the CTEPI. There is a statically significant link between stigma and job loss with a p-value of 0.002. Stigma was strongly associated with community residence, change in income, and post Covid-19 stress ($P < 0.05$). The cured people who live in the communes of Ratoma, Matam, and Matoto are more in the process of being stigmatized than the others, with respectively 27.6%, 23.4%, and 19.1% ($p = 0.001$). These results show the need to support COVID-19 survivors from health, psychological and socio-economic perspectives.

Keywords: Cured, COVID-19, Guinea, stigmatization, psychological, socio-economic perspectives.

Introduction

The first cases of the new coronavirus responsible for the Covid-19 pandemic were notified in December 2019 in the city of Wuhan, China. Since then, Sras-cov-2 (new coronavirus) has continued to spread around the world and more than 200 countries are affected [1,2]. Covid-19 has the usual manifestations of a simple respiratory infection or pneumonia, including fever, cough, shortness of breath, difficulty breathing, and in severe cases, severe acute respiratory syndrome, kidney failure see death (2). Constituting a serious threat to public health and safety, the WHO declared on January 30, 2020, covid-19 as a public health emergency of international concern. On March 11, 2020 the WHO characterized COVID-19 as a pandemic [3,4].

The World Health Organization, due to the emergency, has developed guidelines and enacted measures for states to prevent the spread of the virus. Public health interventions have been introduced globally [5].

Countries that had invested in preparedness for past health emergencies such as Ebola virus disease with the adoption of a multisectoral community approach (community engagement, infection prevention and control), would be able to limit the spread disease [6].

After 6 months of response to the pandemic, several countries are experiencing a marked slowdown in the spread of COVID-19 and some of them are even considering relaxing the containment rules decreed for several weeks [7, 8].

As of July 22, 2020, the WHO reports 14,765,256 confirmed cases worldwide with 612,054 (4.14%) deaths and 8,656,734 recoveries, i.e. more than half. In China, 86,226 people have been confirmed with 4,655 deaths, i.e. a lethality of 5.4% [9].

In Africa, lethality has remained generally low since the start of the pandemic, 10,157 out of 623,851 confirmed cases as of July 22, 2020, i.e. 1.6% lethality.

South Africa and Egypt are the most affected with 381,798 and 89,078 cases respectively (1.4 and 5% lethality) [10].

Guinea notified its first case of COVID 19 on March 12, 2020. Faced with this situation, the Guinean government has taken important measures, in particular the compulsory wearing of a mask, partial confinement, the closure of borders, the state of health emergency to contain the impact of the pandemic at the health, social, economic and financial level [11]. As of July 19, 2020, Guinea has recorded 6,590 confirmed cases with 40 hospital deaths (ANSS, Sitrep N°108 Covid-19, Guinea Ref).

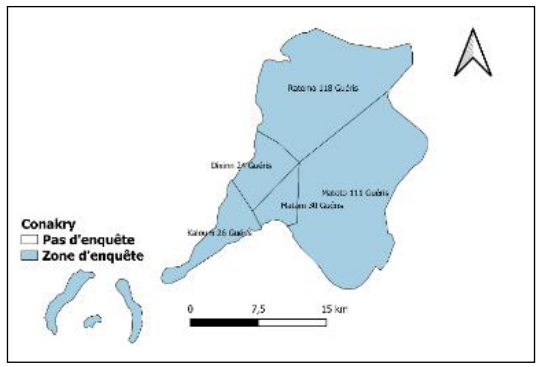
According to the Guinean experience on the experience of Ebola survivors, a number of problems emerged that this group faced: Stigma, discrimination, household dislocation (divorce, separation with children), pressure to change home, job loss, isolation, suicide among some.

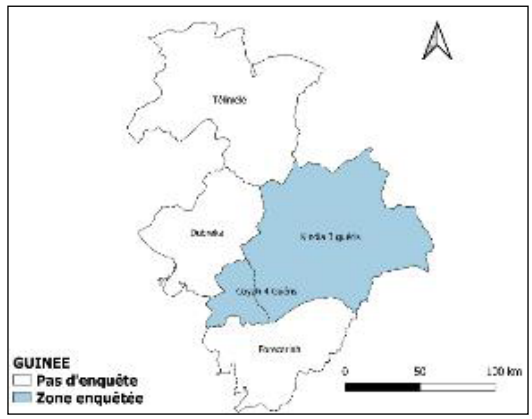
In view of the experience of Ebola, the large number of recoveries from COVID-19 and the need to understand their current situation, the Ministry of Health in collaboration with its partners is concerned about the future of recoveries from COVID-19. 19. It is within this framework that the present research project entitled "Study of the future of those who have recovered from COVID -19" is part of this project. So, what would be the fate of those who have recovered from COVID -19 in the administrative areas of Conakry, Kankan, Labe and Kindia?

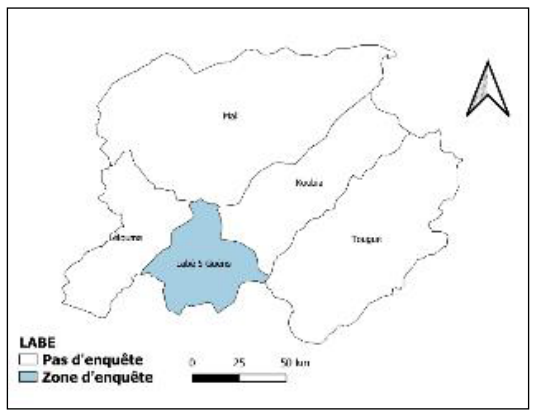
General objective: To describe the experience of people recovered from COVID-19 in the 5 communes of Conakry and the regions of Kankan, Labé, and Kindia.

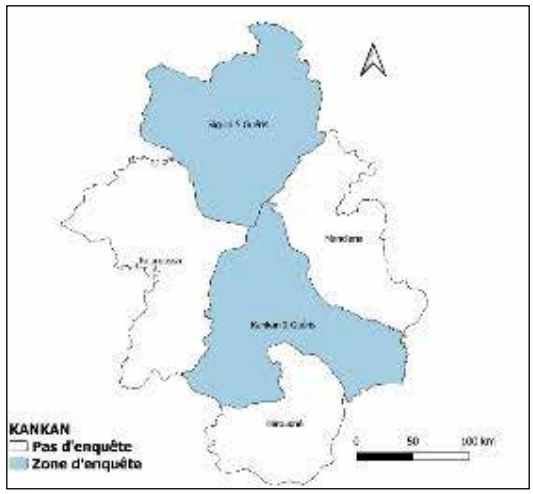
Specific objectives: To describe the community's attitude towards people who recovered from COVID-19 and identify the health and socio-economic problems they face.

Methodology









Population: The people that recovered from COVID-19 recorded in the areas used as the study setting. Type and duration of study: this was a descriptive, quantitative and qualitative cross-sectional study from January 29 to February 09, 2021, with a 2-day pre-survey phase.

Inclusion criteria: Anyone recovered from COVID-19 resides in the areas that served as the study setting.

Exclusion criteria: children under 18 and people with mental disorders were excluded.

Variables: The study variables were socio-demographic characteristics (age, sex, residence, occupation, marital status, and level of education), medical history, knowledge of COVID-19, the attitude of neighbors towards it, and the way of life of the recovered person before and after his contamination.

Data collection: Data collection was done using Kobo Collect administered directly to the cured by 20 investigators supported by six (6) supervisors.

Sampling: We carried out random and simple sampling. We used the following formula to calculate the minimum sample size: $\eta = Z2 \times Px (1-P) / d^2$ (Z = is the confidence level of the study, p = is the proportion of cured in the population of confirmed Covid-19, d = is the margin of error of the study).

With a confidence level of 95%, a margin of error α = 5%, and the value of Z is equal to 1.96. The proportion of those cured in the 12,484 confirmed cases of Covid-19 as of November 10, 2020 was estimated at 87%, with 10,857 cured.

However, this estimate suffers from a bias, as more than 30% of confirmed cases had not been taken care of at a Covid-19 treatment center, so their status remained unknown. For these reasons, we applied the principle of p = 50%. The sample size was estimated to be 384 recovered.

To compensate for non-respondents, we adjusted the size by 5%, or 403. The Randomizer software was used to draw the numbers in the base of the cured according to the size of the sample. Excel and STATA were used. Comparisons were made using Pearson's Fischer and Chi-square tests (95% CI) and $p < 0.05$ The study was approved by the ethics committee (N: 141/ CNERS/20).

Results

A total of 330 COVID-19 survivors responded to the survey or 85% of the expected sample size.

Table I : Factors associated with the stigma of COVID-19 survivors, March 2020-January 2021.

Variables	Stigma		Total	P-value
	Yes	No		
Sex				0.500
• M	35 (74,5%)	197 (69,6%)	232	
• F	12 (25,5%)	86 (30,4%)	98	
Age (year)				0.325
• 19-29	18 (38,2)	85 (30%)	103	
• 30-39	11 (23,4)	98 (34,6)	109	
• 40-49	11 (23,4)	49 (17,3)	60	
• 50 et plus	7 (14,8)	51	58	
Marital status				0.164
• Married	28 (59,57%)	203 (71,73%)	231	
• Single	18 (38,3%)	75 (26,5%)	93	
• Divorced	1 (2,13%)	5 (1,77%)	6	
Level of education				0.220
• Out of school / primary	2 (4,25%)	33 (11,67%)	35	
• Secondary / vocational and	11 (23,4%)	77 (27,2%)	88	
• University and more	34	173	207	

Variables	Stigma		Total	P-value
	Yes	No		
Occupation				0.333
• Pupil / Student / Teachers	7	29		
• Personal health	8	50		
• Workers	5	64		
• Defense and security	4	20		
• Other officials	23	120		

Concerning this study, there is a predominance of males as 232 are male against 98 females-

Among COVID-19 survivors' occupations, 64 are workers in different sectors, and 50 are health agents.

Regarding the level of education, 23.4% were limited to the secondary and professional level, and 4% had never been to school.

Table II: Distribution according to the characteristics of those recovered from Covid-19 in the region's March 2020-January 2021.

Variables	Numbers	Frequency (%)
Move		
Yes	29	8,79
No	301	91,21
Survivors with a job before COVID-19	N=310	
Yes	230	74,19
No	80	25,81
Survivors who lost their jobs after Covid-19	n=230	
Yes	18	7,83
No	212	92,17
Return to work after illness	n=212	
Yes	208	98,11
No	4	1,89
Survivors who agreed to share information about their status	N=330	
Yes	182	55 ,15
No	148	44,85
Survivors showing signs of stress	N=330	
Yes	27	8,18
No	303	91,82

The table shows that more than 90% of those discharged from the TC-IP did not change their residence after discharge and only 7.83% of them lost their jobs.

Concerning the returning to work after leaving the TC-IP, 98.11% of those who had recovered returned to work immediately after their recovery.

Regarding sharing information about their covid-19 status, 55.15% said they had shared their recovered status with their colleagues and neighbors without hesitation.

Table III: Distribution of respondents according to the perception and attitude of the COVID-19 entourage, March 2020-January 2021

Characteristics	Number	Percentage
Perception of family		
No change; it was like before	88	26,67%
Good perception, welcoming, friendly and pleasant	191	57,88%
Bad perception, mistrust, stigma	14	4,24%
Undetermined, the whole family was positive, I live alone, no one was informed	37	11,21%
Attitude of the entourage		
No change; it was like before	109	33,03%
Good perception, welcoming, sympathetic and pleasant	133	40,30%
Bad perception, mistrust, stigma	53	16,06%
Undetermined, the whole family was positive, I live alone, no one was informed	35	10,61%

Regarding the attitude of the family towards those whom COVID-19 has cured, 57.88% stated that they were well received on their arrival - on the other hand, 4.24% said that they were badly received and sometimes they were meme ignored by members of their own family.

Table IV: Factors associated with the stigma of COVID-19 survivors March 2020-January 2021

Variables	Stigma		Total	P-value
	Oui	Non		
Other districts				**0.001**
Dixinn	3 (6,4%)	21 (7,4%)	21	
Kaloum	5 (10,6%)	21 (7,4%)	26	
Matam	11 (23,4%)	19 (6,7%)	30	
Matoto	9 (19,1%)	102 (36%)	111	
Ratoma	13 (27,6%)	107 (37,8%)	120	
Other districts	6 (12,8%)	13 (4,6%)	19	
Income change				**0.003**
Yes	14 (33,3%)	40 (14,9%)	54	
No	28 (66,7%)	228 (85,1%)	256	
Stress				**0.000**
Yes	15 (31,9%)	12 (4,2%)	27	
No	32 (68,1%)	271 (95,8%)	303	

There were statically significant relationships between the place of residence, variation in financial earning, stresses, and stigma among Ebola recoveries (P≤0.05).

Discussion

As soon as the first case of COVID-19 was notified on March 12, 2020, the National Health Security Agency activated its response plan. This plan did not take into account certain concerns, in particular those recovered from COVID-19.

This survey showed the need for support for survivors on the health, psychological, social, and economic levels. After experiencing the grim realities of CTePi, these healed people were still victims of some issues such as stigma, stress, job loss, and declining income. Almost half of the survivors, 148 (45%) out of 330 recovered did not want their status to be known to others.

Among them, 62.73% were university students; 70% of survivors were married against 28.18% were single; 99% of respondents lived in urban areas. Males accounted for 70.3% of cases, and the 19-38 age group was the most represented at 61.82%. The average age of participants was 37.5 years, with extremes of 19 and 76 years.

Among those who recovered from stress, 19% were those who had lost their jobs. And those who had lost their jobs were more stressed than the other survivors who did not lose their jobs. This relationship is statistically significant P = 0.045. Although we only covered 330 people, this size is representative. Among the 330 surveyed, 33% declared having been the victim of stigma. 21% lost their jobs; 4.2% experienced stigmatization from their families and friends. More than 16% are badly perceived when they return to their respective communities. There is a statically significant association between stigma and job loss with a P = 0.002; 33% of respondents said they had not noticed a change in behavior towards them; 63.63% of these stigmatized people lost their jobs (P = 0.007). Community residence, change in income, and COVID-19 post-stress are factors associated with stigma (p = 0.003).

The cured living in the communes of Ratoma, Matam, and Matoto are more stigmatized than the others, respectively 27.6%, 23.4%, and 19.1% (p = 0.001). There is not a statistically significant relationship between gender, age, marital status, level of education, occupation, and the occurrence of stigma among those recovered from COVID-19.

Conclusion

Our study shows that there is a need for psychological and socio-economic support in addition to the medical follow-up the recovered from treatment centers. After their journey in the CTePi, the cured suffer from the stigma, stress, and loss of income.

Ethical clearance : Taken from.AFRO Ethics Review committee, September, 18th 2020 (a copy will be attached).

Source of funding : The study was carried out with funding from the WHO.

Conflict of interest : There is not conflit interest .

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