Subnormal Clusters in the Context of the Current COVID-19 Outbreak: Challenges for Brazilian Public Health

Samuel Cota Teixeira*

Institute of Biomedical Science, Department of Immunology, Federal University of Uberlândia, Uberlândia, MG, Brazil

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To the Editor,

The recent Coronavirus Disease 2019 (COVID-19) outbreak, caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), has rapidly become a worldwide public health concern. On February 3, 2020, the Brazilian government declared the COVID-19 pandemic as a public health emergency; thus, the following question is raised: What is the current situation in the Brazilian subnormal clusters popularly known as favelas seven months later?

São Paulo and Rio de Janeiro are the most populous states in the Southeast region of Brazil, and have presented the highest rate of cases and deaths caused by COVID-19 in the last months (Table 1). On September 13, 2020, São Paulo accumulated 892,257 cases and 32,606 deaths; while Rio de Janeiro presented 242,491 cases and 16,990 deaths (Table 1). Despite the higher rates of cases and deaths presented by São Paulo when compared to Rio de Janeiro, to date, the mortality rate/100,000 inhabitants in the Rio de Janeiro is 98.4 when compared to São Paulo with 71.0 [1]. Therefore, the current situation in the Rio de Janeiro has become an emergency public health problem, where a large portion of the population resides in poor living conditions in typical favelas (Figure 1).

Brazil is a large country marked by a fragile health system that has failed to offer an equal access to the public health services, which is highlighted mainly in areas of social exclusion such as in the Brazilian favelas. Illustrating that, Pereira, et al. [2] has published an article addressing the potential risks of transmission of the recent Coronavirus Disease 2019 (COVID-19) in Brazilian favelas. The authors showed that the health inequalities, overcrowding population, pollution and the lack of basic sanitary conditions can contribute to the high risk of transmission of the novel coronavirus.

According to a survey carried out in the Rio de Janeiro’s favelas, about 75.5% of people with COVID-19 symptoms did not seek medical care, and 10% of deaths occurred at home, without any medical assistance [3]. Adding another layer of complexity to the public health crisis in Rio de Janeiro, nurses and nursing technicians went on strike on July 23, 2020, after accumulating months of back wages [4].

Although 24% of the population of the city of Rio de Janeiro lives in about 1000 favelas, the Brazilian government has failed to collect the number of cases and deaths by COVID-19. Illustrating this, a recent study carried out in four Rio de Janeiro’s favelas demonstrated that approximately 90,200 infected people never appeared on public panels [5]. In addition to underreporting cases, one of the most challenges for facing the COVID-19 outbreak in the favelas, the low number of deaths disclosed by official reports shows that the victims of this viral pandemic remain almost invisible to the health system [5]. Taken together, the underestimated reality faced by people living in these areas becomes a tremendous problem for the flexibilization process. As result, even without a real sense of the seriousness of the situation in the favelas, the Brazilian authorities have decided to open bars and restaurants, without taking into account the peculiarities of the poor conditions of the favelas to face the rapid spread of COVID-19 [6].

Due to the divergencies and lack of data disclosed by different levels of government, some non-governmental organizations together have proposed a “COVID-19-unifying panel in favelas” to consolidate more accurately the data on the cases and deaths caused by COVID-19 in the Rio de Janeiro’s favelas [6,7]. On August 13, 2020, according to the COVID-19 panel were confirmed 9,641 cases and 1,415 deaths of favelas [6].

*Corresponding author: Dr. Samuel Cota Teixeira, Ph.D, Institute of Biomedical Science, Federal University of Uberlândia, Campus Umuarama, Av. Para, 1720 | 38400239, Uberlândia-MG, Brazil, Tel: +55-34-32258569

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Challenges have faced by Brazilian favelas are highlighted. It is known that, to mitigate the rapid spread of COVID-19, multifactorial public health measures are required, such as mass testing, population awareness, isolation, social distance and contact tracking [8]. However, these measures are far from being a reality to be achieved for people living in the favelas. Thus, the bleak situation in Brazilian favelas raises concerns and leaves doubts about the ways of COVID-19 in these places on the margins of public health services. Box 1 - Summarizes the current situation of Brazilian favelas in the context of the COVID-19 outbreak [5,6,9].

**Conflicts of Interest**

The author declares no conflict of interest.

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**Table 1:** Number of cases and deaths caused by COVID-19 in the Brazilian states of São Paulo and Rio de Janeiro during the months of March to September (2020) [1].

| Date (2020)  | São Paulo |       | Rio de Janeiro |       |
|--------------|-----------|-------|----------------|-------|
|              | Number of cases | Number of deaths | Number of cases | Number of deaths |
| 03/March     | 2         | 0     | 0              | 0     |
| 03/April     | 4,048     | 219   | 1,074          | 47    |
| 03/May       | 31,772    | 2,627 | 11,139         | 1,019 |
| 03/June      | 123,483   | 8,276 | 59,240         | 6,010 |
| 03/July      | 310,702   | 15,694| 118,956        | 10,500|
| 03/August    | 560,218   | 23,365| 168,064        | 13,604|
| 07/September | 837,978   | 30,905| 230,271        | 16,394|

**Figure 1:** Typical favela surrounded by forest located at the base of a hill in the city of Rio de Janeiro, Brazil.
Table 2: Number of accumulated cases and deaths caused by COVID-19 in the Rio de Janeiro’s favelas with the highest transmission rate. The data were obtained from COVID-19-unifying panel in favelas with last update on September 14, 2020 [7].

| Rio de Janeiro’s favelas         | Number of cases | Number of deaths |
|----------------------------------|-----------------|------------------|
| Complexo da Maré                 | 1,667           | 126              |
| Comunidade do Engenho            | 873             | 128              |
| Comunidade Sem Terra             | 553             | 189              |
| Complexo da Penha                | 538             | 43               |
| Morro do Carvão                  | 532             | 126              |
| Complexo do Jacaré               | 493             | 53               |
| Complexo do Alemão               | 491             | 44               |
| Comunidade de Chaperó            | 487             | 85               |
| Rocinha                          | 391             | 62               |
| Vidigal                          | 356             | 19               |
| Cidade de Deus                   | 347             | 65               |

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Ethical Approval

Not required.

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