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Correspondence: D. Yahav, Infectious Diseases Unit, Rabin Medical Center, Beilinson Hospital, 39 Jabotinsky st, Petah-Tikva, Israel 49100 (dafina.yahav@gmail.com).

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Disproportionate Impact of Coronavirus Disease 2019 (COVID-19) Among Pregnant and Postpartum Black Women in Brazil Through Structural Racism Lens

To the Editor—Tai and collaborators [1] raised important questions about the potential biomedical factors and social determinants that play a role in the observed racial disparities on coronavirus disease 2019 (COVID-19) outcomes in the United States. Evidence of such disproportionate impacts is also being collected on historically oppressed ethnic groups in Brazil, who are currently at the epicenter of the worldwide pandemic [2]. Our group is closely monitoring an overwhelming number of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)–related maternal deaths in the country [3]. Racial disparities among childbearing women within the health-care system have been widely described, and already pose difficult challenges to improving maternal outcomes in the country [4, 5]. Thus, it was expected that Black Brazilian pregnant and postpartum women would face additional challenges during the pandemic. We searched the Brazilian Acute Respiratory Distress Syndrome Surveillance System for COVID-19 cases among pregnant or postpartum women with complete data on ethnicity until 14 July 2020 (n = 1860), then selected records of White and Black women (n = 669; Table 1).

In our sample, there were similar mean ages and morbidity profiles between Black women and White women, but Black women were hospitalized in worse conditions (higher prevalence of dyspnea and lower O_2 saturation) and had higher rates of intensive care unit admission, mechanical ventilation, and death. We previously reported that barriers to access for intensive care seem to play a role in the high number of COVID-19–related maternal deaths in the country [3]. However, data presented here may indicate that Black pregnant and postpartum women have been disproportionately affected by COVID-19 due to processes originating outside the hospital [6]. As pointed out by Tai et al [1], biomedical lens can be used to approach racial disparities in health. However, in our sample, the clinical risk factors commonly associated with worse prognoses for COVID-19 were not significantly different between Black and White women. Therefore, it is reasonable to rely predominantly on social determinants of health to interpret our findings. In Brazil, this implies recognizing both racism and sexism as structural determinants that shape worse living and working conditions, as well as a lack of access to health care and a lack of opportunities within the Black population, particularly Black women [7]. By focusing on this group, specifically during pregnancy and the postpartum period, we direct our lens to the most vulnerable

Table 1. Case Characteristics

	Black, n = 134		White, n = 535		
	n/N	%	n/N	%	*P* Value[a]
Age, mean (SD)	30.6 (7.0)		30.3 (6.6)		>.05
Comorbidity or risk factors					
Cardiovascular disease[b]	22/134	16.4	67/535	12.5	>.05
Diabetes[c]	19/134	14.2	57/535	10.6	>.05
Obesity	12/134	8.9	37/535	6.9	>.05
Any comorbidity	45/134	33.6	160/535	29.9	>.05
Symptoms at admission					
Dyspnea	85/124	68.5	260/474	54.8	<.001
Respiratory distress	69/120	57.5	238/463	51.40	>.05
SpO2 <95%	56/118	47.5	137/446	30.7	<.001
ICU admission	37/134	27.6	104/535	19.4	<.001
Mechanical ventilation	20/134	14.9	39/535	7.3	<.001
Death[d]	17/100	17.0	38/423	8.9	<.001

Data are from Black and White maternal COVID-19 ARDS cases in Brazil (n = 669).

Abbreviations: ARDS, Acute Respiratory Distress Syndrome; COVID-19, coronavirus disease 2019; ICU, intensive care unit; SD, standard deviation; SpO2, oxygen saturation.

[a]Chi-square test.

[b]Includes both heart diseases and hypertension, whether chronic or gestational.

[c]Includes both gestational and pregestational diabetes.

[d]Among women with a recorded outcome in the database.

individuals in our society, who constitute the base of the power pyramid [8].

Our findings showed that maternal mortality in Black women due to COVID-19 was almost 2 times higher than that observed for White women. This adds to previous observations from the United States and United Kingdom that Black and other ethnic minority groups are struggling to survive pregnancy and the postpartum period with COVID-19 [9, 10]. However, they also highlight the need to move forward with tackling social determinants of health outside hospitals, including by implementing social protection policies within vulnerable communities to reduce the likelihood of sickness and to strengthen widely accessible primary care services, including by offering culturally appropriate, effective, family-centered COVID-19 monitoring, diagnoses, and treatment. In Brazil, the intersection of gender, race, and social class deepens the tragedy of COVID-19 maternal deaths, particularly when the country is not adopting truly effective pandemic containment measures.

Notes

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Debora de Souza Santos,[1] Mariane de Oliveira Menezes,[2] Carla Betina Andreucci,[3] Marcos Nakamura-Pereira,[4] Roxana Knobel,[5] Leila Katz,[6] Heloisa de Oliveira Salgado,[7] Melania Maria Ramos de Amorim,[6] and Maira L. S. Takemoto[2]

[1]Nursing School, Universidade Estadual de Campinas, Campinas, Brazil, [2]Department of Gynecology and Obstetrics, Botucatu Medical School, Universidade Estadual Paulista, Botucatu, Brazil, [3]Department of Medicine, Universidade Federal de São Carlos, São Carlos, Brazil, [4]Fernandes Figueira National Institute of Women, Adolescent and Child Health, Fundação Osvaldo Cruz, Rio de Janeiro, Brazil, [5]Department of Gynecology and Obstetrics, Universidade Federal de Santa Catarina, Florianópolis, Brazil, [6]Instituto de Medicina Integral Prof. Fernando Figueira, Recife, Brazil, [7]Department of Social Medicine, Ribeirão Preto Medical School, Universidade de São Paulo, Ribeirão Preto, Brazil

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Correspondence: M. L. S. Takemoto, Universidade Estadual Paulista Júlio de Mesquita Filho Câmpus de Botucatu Faculdade de Medicina Botucatu, Av. Prof. Mário Rubens Guimarães Montenegro, s/n - UNESP - Botucatu/SP, São Paulo 18618687, Brazil (maira.libertad@unesp.br).

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