Disproportionate impact of COVID-19 among pregnant and postpartum Black Women in Brazil through structural racism lens

Debora de Souza Santos, RN, PhD, Mariane de Oliveira Menezes, CM, MSc, Carla Betina Andreucci, MD, PhD, Marcos Nakamura-Pereira, MD, PhD, Roxana Knobel, MD, PhD, Leila Katz, MD, PhD, Heloisa de Oliveira Salgado, MSc, PhD, Melania Maria Ramos de Amorim, MD, PhD, Maira L S Takemoto, CNM, PhD

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Debora de Souza Santos, RN, PhD, Nursing School, Universidade Estadual de Campinas (UNICAMP), Campinas, Brazil

Mariane de Oliveira Menezes, CM, MSc, Department of Gynecology and Obstetrics, Botucatu Medical School, Universidade Estadual Paulista (UNESP), Botucatu, Brazil

Carla Betina Andreucci, MD, PhD, Department of Medicine, Universidade Federal de São Carlos (UFSCAR), São Carlos, Brazil

Marcos Nakamura-Pereira, MD, PhD, Fernandes Figueira National Institute of Women, Adolescent and Child Health, Fundação Osvaldo Cruz (FIOCRUZ), Rio de Janeiro, Brazil

Roxana Knobel, MD, PhD, Department of Gynecology and Obstetrics, Universidade Federal de Santa Catarina (UFSC), Florianópolis, Brazil

Leila Katz, MD, PhD, Postgraduation Program, Instituto de Medicina Integral Prof. Fernando Figueira (IMIP), Recife, Brazil

Heloisa de Oliveira Salgado, MSc, PhD, Departament of Social Medicine, Ribeirão Preto Medical School, Universidade de São Paulo (USP), Ribeirão Preto, Brazil

Melania Maria Ramos de Amorim, MD, PhD, Postgraduation Program, Instituto de Medicina Integral Prof. Fernando Figueira (IMIP), Recife, Brazil

Maira LS Takemoto, CNM, PhD, Department of Gynecology and Obstetrics, Botucatu Medical School, Universidade Estadual Paulista (UNESP), Botucatu, Brazil

Corresponding author:

Maíra L S Takemoto

maira.libertad@unesp.br

Rua Carlos Guadanini, 2564, Botucatu-SP, Brazil – Postal code 18610-120

+55 21 971724103

Dear Editor,

Tai and collaborators raised important questions about the potential biomedical factors and social determinants that play a role in the observed racial disparities on COVID-19 outcomes in the US[1]. Evidence of such disproportionate impact is also arising on historically oppressed ethnic groups in Brazil, current worldwide pandemic epicenter [2]. Our group is closely monitoring an overwhelming number of SARS-CoV-2-related maternal deaths in the country[3]. Racial disparities among childbearing women within the healthcare system have been widely described, and already pose difficult challenges to improve 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 looking for COVID-19 cases among pregnant or postpartum women with complete data on ethnicity until July 14, 2020 (n=1,860), then selecting records of White and Black women (n=669, Table 1).

In our sample, Black women had similar mean age and morbidity profile as White women but were hospitalized in worse conditions (higher prevalence of dyspnea and low O_2 saturation), had a higher rate of ICU admission, mechanical ventilation, and death. We previously reported that barriers to access 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 originated outside the hospital[6]. As pointed by Tai et al, biomedical lens can be used to approach racial disparities in health. However, in our sample, clinical risk factors commonly associated with worse prognosis for COVID-19 were not significantly different between Black and White women. Therefore, it is reasonable to rely predominantly on social determinants of health Lens 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 lack of access to health care and opportunities to the Black population, particularly Black women[7]. By focusing in this group, specifically during pregnancy and

the postpartum period, we direct our lens to the most vulnerable 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 two times higher than observed for White women. This adds to previous observations from US and UK 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 for actions tackling social determinants of health outside hospitals, including social protection policies to reduce the likelihood of getting sick and strengthening widely accessible primary care services by offering culturally appropriate, effective, family-centered COVID-19 monitoring, diagnosis and treatment within vulnerable communities. In Brazil, the intersection of gender, race and social class deepen the tragedy of COVID-19 maternal deaths, particularly when the country is not adopting truly effective pandemics containment measures.

NOTES

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Conflict of interests

The authors declare that they have no conflict of interest.

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Table 1. Characteristics of black and white maternal COVID-19 ARDS cases in Brazil (n=669)

	Black (n=134)		White (n=535)		p-value[a]
	n/N	%	n/N	%	
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

ARDS, Acute Respiratory Distress Syndrome; SD, standard deviation; ICU, intensive care unit; [a] chi-square test; [b] Includes both heart diseases and hypertension, chronic or gestational; [c] Includes both gestational and pre-gestational diabetes; [d] among women with a recorded outcome in the database