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<https://doi.org/10.5664/jcsm.8570>

Sleep disparities in the era of the COVID-19 pandemic highlight the urgent need to address social determinants of health like the virus of racism

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Financial support: This work was funded by the Intramural Program at the NIH, National Institute of Environmental Health Sciences, and by the National Heart, Lung, and Blood Institute, (NHLBI) K01HL138211.

All authors have seen and approved the manuscript.

Conflict of interest: None declared.

Off-label or investigational use: Not applicable.

Report of clinical trial results: Not applicable

Acknowledgements: The authors wish to thank Nyree Riley for technical assistance.

Number of tables/figures: 0

Word count: 698/700

With enough intensity to make it difficult for all to sleep well at night, COVID-19 has spread globally, and the health and social consequences of the virus – ranging from hospitalizations/death to joblessness – have differentially affected communities.^{1,2} Racial/ethnic minorities and other disadvantaged populations are more vulnerable to COVID-19 due to being disproportionately burdened by immune-compromising chronic conditions that are manifestations of a race-conscious society.³ Emanating from racial residential and labor market segregation, racial/ethnic minorities are generally more likely to have “essential” precarious low-wage jobs without worker protections (e.g., paid sick leave), use public transportation, and live in substandard multi-family units.⁴⁻⁶

Comparable to being chronically less likely to get physiological (e.g., recommended sleep) and social (e.g., livable wages) needs met, disadvantaged populations are presumably less likely to have resources to adhere to pandemic recommendations (e.g., shelter in [a safe] place). These factors, rooted in a historical legacy of well-founded medical mistrust, represent pre-pandemic stressors/disadvantages that are likely heightened due to COVID-19. In fact, racial/ethnic minorities are less likely to be tested despite symptoms⁷ and may have less access to COVID-19 testing due to costs and accessibility of testing centers with hours congruent for service-oriented front-line workers.⁸ These stressors can induce fear and anxiety – contributors to sleep disturbances.⁹⁻¹²

Similar to COVID-19 disparities, racial/ethnic minorities and disadvantaged populations are disproportionately burdened by insufficient sleep, poor sleep quality, and sleep disorders such as sleep apnea.¹³ These stark sleep disparities are generally attributable to social (e.g., stress, discrimination) and environmental (e.g., air pollution, household crowding) factors.¹³⁻¹⁷ Pre-existing sleep disparities are clearly relevant to the pandemic as poorer sleep likely contributes to disparities in cardiometabolic outcomes¹⁸ – conditions that increase susceptibility to COVID-19. Additionally, COVID-19 related psychosocial stressors may exacerbate sleep disparities.

Therefore, an urgent need exists to address the fundamental social and environmental determinants of sleep disparities and identify mitigating factors among disadvantaged populations. Potential roles and responsibilities for researchers and clinicians focused on sleep include the prioritization of action-oriented, inclusive, patient-centered, and asset-based approaches with non-exhaustive recommendations listed below:

1. **Researchers and clinicians should seek to dismantle systems (e.g., healthcare) that perpetrate inequitable distribution of power (e.g., decision making) and resources (e.g., quality of care) in order to help address differential social vulnerabilities by, for instance, using a health equity lens in ALL research and clinical practice.** Adherence to AASM mitigation strategies/guidelines should include information regarding the promotion of health equity as a cross-cutting theme.¹⁹ Also, the field should advocate for establishing and strengthening social safety nets (e.g., universal healthcare).
2. **Inclusion of structural (primary focus) and individual-level (secondary focus) interventions outside of healthcare.** This can be achieved by highlighting the public health consequence of failing to address societal issues and ensure a baseline level of social needs are met,²⁰ which is similar to a '[sleep] health' and '[sleep] health equity' in all policies approach. For instance, equity promotion involving livable wages to address financial strain will likely improve sleep.²¹
3. **Patients (especially the traditionally underserved) should be included as stakeholders in healthcare decision making.** Create or enhance the infrastructure to navigate the healthcare system (e.g., utilize patient-centered medical homes). Clinicians should, for instance, a) incentivize sleep specialists to work in federally qualified health centers where vulnerable populations disproportionately seek care, b) use telemedicine/telehealth to minimize distance barriers for remotely screening and treating

patients, and c) support incorporation and reimbursement of paraprofessionals (e.g., community health workers) who have been shown to improve health and address health disparities.²² Clinicians should also routinely include sleep-relevant social determinants of health (e.g., workplace stressors; housing factors) in medical records and partner with community-based organizations or health advocates to connect to a wide range of resources to address patient-reported stressors.

4. Implement or advocate for the following recommendations:

- Understand sleep health disparities²³
- Promote healthy stress-coping strategies (e.g., meditation, yoga)
- Require clinicians undergo implicit bias (<https://biasinterrupters.org/>) and cultural competency trainings
- Include culturally-competent material in sleep-related research/interventions

It is our joint privilege and responsibility to address and certainly prevent the exacerbation of sleep disparities during and after the COVID-19 pandemic by implementing structural and culturally-sensitive interventions/treatments to improve sleep and subsequent health outcomes among communities experiencing health disparities while not simply returning to business as usual.

Accepted Paper

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