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Commentary

#NoJusticeNoSleep: Critical intersections of race-ethnicity, income, education, and social determinants in sleep health disparities

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Note from the editor

Sleep Health has published its first virtual special issue (VSI). These VSIs are collections of published papers on a particular topic, gathered by an editor. This first VSI is available online at <https://www.sciencedirect.com/journal/sleep-health/special-issue/10R0W0KL65T>.

How did we get here?

The COVID-19 pandemic has illuminated the dark side of the socio-economic forces that have been so inextricably interwoven into the fabric of the American society for individuals from racial-ethnic minority backgrounds. Consequently, individuals and institutions alike have been compelled to hold the mirror up to the sociopolitical systems that sustain health disparities in our society. Echoing the chant of many scholars, it is important to recognize that while we continue to navigate the collective trauma of the COVID-19 pandemic and its ripple effects, pockets of our society continue to battle two pandemics: COVID-19 and racism.¹ The social justice movements that defined the summer of 2020, following the murder of George Floyd, led to waves of reactions across various domains of society: administrative leaders of colleges and universities issued statements filled with promises to infuse an anti-racist agenda at their institutions²; businesses issued public statements in support of social justice movements, such as #BlackLivesMatter^{3,4}; law enforcement departments were challenged to address the issue of police brutality^{5,6}; and political leaders deliberated policy reform extensively in education, income, and health. Meanwhile, academics engaged in both research and social media efforts to address structural inequalities in funding opportunities, hiring practices, and curriculum development.⁷ Some of the online movements include #BlackinNeuro, #BlackInTheIvory, #ShutDownAcademia.⁸

Notably, these movements highlighted inequalities beyond Black communities. Members from Asian and Asian-American communities witnessed significant increases in hate crimes since the pandemic,^{9,10} which inspired social justice movements online and in the streets: #StopAsianHate #StopAAPIHate.¹¹ Within this climate—a social “re-awakening” of intersecting social, political, health, and economic forces—we present the inaugural virtual special issue of Sleep Health, “#NoJusticeNoSleep: Critical intersections of race-ethnicity, income, education, and social determinants in sleep health disparities.”

Key contributions of the virtual special issue

Evidence supporting racial-ethnic disparities in sleep health is clear.^{12–15} Inadequate sleep duration and less restful/restorative sleep are more prevalent among individuals from racial-ethnic minority groups in the United States (U.S.).¹⁶ Poor quality sleep has long been identified as a critical pathway linking lower income and lower education to increased risk for poor physical *and* mental health.¹⁷ Social factors, such as neighborhood disadvantage,¹⁸ neighborhood crime,¹⁹ lack of adequate access to equitable health and social services,²⁰ housing inequality,²¹ and racial discrimination^{22,23} have all been identified as contributing factors to the rise of sleep health disparities in the U.S. Yet, the story of *why* “every shut eye ain’t sleep” in America is far from complete.²⁴ To this end, this virtual special issue represents a collective effort spanning various institutions and research groups, whose dedicated work provide a guiding framework for understanding the critical intersections of race-ethnicity, income, education, and other social determinants as contributors to the well-documented racial-ethnic disparities in sleep health. Further, beyond the opportunity to rise to the occasion of the *current* social climate, this virtual special issue acknowledges the long history of racial discrimination and structural inequalities in perpetuating sleep health disparities, by shining the spotlight on a diverse group of scholars, whose work on this topic began well before the COVID-19 pandemic. Impressively, the studies included in this inaugural virtual special issue span a data collection period from 1987/88 to 2020.

Earlier studies documenting racial-ethnic and socio-economic group differences in sleep and other health outcomes have been instrumental in steering the field toward uncovering the inequities that perpetuate poor sleep and health among members of socio-demographic minority groups in the U.S. Unfortunately, evidence of health disparities has sometimes been interpreted inaccurately, with the assertion that there is something inherent to one’s race-ethnicity that drives such outcomes. Scholars have long cautioned against the “ethnic paradigm” approach because of the “logical, conceptual, and practical” limitations.²⁵ In their epidemiologic work, Kaufman and Cooper²⁵ advocate for the operationalization of race-ethnicity as an index of the social processes that define the *experience* of racial-ethnic minority groups within their respective societies, in contrast to designs that propose race-ethnicity status as a causal factor. In

response to this call, the articles in this virtual special issue have explored a range of social experiences that have characterized racialized identities in the U.S: essential worker status during the COVID-19 pandemic²⁶; lower socioeconomic status^{27,28}; and experiences of racial discrimination.^{29,30} It is imperative that research continues to evolve beyond comparisons of racial-ethnic groups on sleep and other health outcomes, and instead focus on explaining the unique processes that characterize experiences among diverse groups of individuals. The finding of opposite educational gradients in sleep duration between Black and White adults³¹ illustrates the need to retire a “one size fits all” approach and turn, instead, toward understanding the unique barriers and challenges that specific groups of individuals face in their quest for adequate, restorative sleep. Importantly, this special issue contains examples of such critical work, including research investigating clinical, behavioral, and community-related correlates of sleep duration and efficiency among middle-aged Black/African American smokers³²; an examination of the link between sleep and physical activity for work and leisure among a sample of Latinx adults in the U.S.³³; and the link between goal-striving stress and sleep (duration and quality) among a sample of African American men and women from the Jackson Heart Study.³⁴

Even more remarkable is the notable exploration of the diversity *within* unique racial groups by Rae and colleagues³⁵ in their investigation of associations between sleep duration and cardiometabolic risk factors among Black/African-origin adults from diverse cultural contexts: Ghana, South Africa, Jamaica (Caribbean), Seychellois, and the U.S. More of these types of studies will enable a nuanced approach to understanding the cultural influences that define the varied lived experiences of individuals who happen to share the same racial identity and inform strategies to improve sleep in these populations. For example, authors found that a text-message-based sleep intervention improved sleep duration among non-Hispanic White adolescents, but not among those who identified as a racial-ethnic minority.³⁶ Such findings further highlight the need to explore unique barriers to good sleep among specific racial-ethnic groups. Because the lived experiences of individuals from specific racial-ethnic minority groups cannot always be observed in other racial-ethnic groups, it is necessary for future research to dive deeper and explore the varied pathways that sustain poor sleep among specific groups of individuals with similar lived experiences.^{37,38} For example, studies examining how Black males navigate experiences of racial discrimination need not seek a comparison group of White women to draw valid conclusions. The limitations of generalizing findings from W.E.I.R.D. (Western, Educated, Industrialized, Rich, and Democratic) samples to other cultural groups have been well documented within psychological research.³⁹ Thus, the assumption that individual factors that sustain poor sleep are equal across racial-ethnic and cultural groups represents a glaring blind spot in the field. Past sleep health research has generally ignored within-group heterogeneity among individuals from racial-ethnic minority groups in the U.S. The within racial group approach used by Rae and colleagues³⁵ offers a clear framework for future research to focus on culturally specific barriers to, and facilitators of, healthy sleep among individuals with a shared racial-ethnic identity. Importantly, results of these studies will provide scientifically sound evidence to inform the implementation of effective interventions that reduce racial-ethnic disparities in sleep health.^{37,38}

From a developmental perspective, this special issue provides further evidence for the critical role that sleep health plays across the lifespan. Although most of the studies were based on adult samples (18 years and older), several studies included a wide adult age range. Powell and colleagues³⁰ assessed sleep outcomes among children as young as 6 months old in relation their mothers' experiences of racial discrimination. Matthews and colleagues²⁷ reported socio-economic and parenting-related factors assessed during adolescence

(13–16 years old) in relation to sleep outcomes in adulthood. Finally, one study investigated racial-ethnic disparities in subjective sleep duration among a nationally representative sample of emerging adults (18-to-25 years old) residing in college dormitories in the U.S.⁴⁰ These studies highlight the importance of addressing the implications of sleep health disparities from birth and throughout the lifespan.

Given the multidimensional nature of sleep, it is worth noting that sleep health disparities exist in many forms. Most of the studies in this special issue focus on disparities in sleep duration^{30,31,33,35} or a combination of sleep duration and sleep quality.^{26,27,32,34,40} The most prevalent approach has been the use of subjective assessments of sleep duration and sleep quality, with two studies employing the use of actigraphy to objectively measure sleep duration, sleep efficiency, and wake time after sleep onset.^{27,32} It will be necessary for future research to extend the scope of sleep health disparities by incorporating comprehensive assessments of sleep across a range of sleep health facets: abnormalities in sleep stages, sleep onset latency, daytime sleepiness, time in bed, night awakenings, inconsistencies in bedtimes and wake times, as well as a various sleep and circadian rhythm disorders. Moreover, a combination of both objective and subjective approaches to measuring sleep parameters will be necessary to best capture the complexities of the sleep experience through objective and perceived lenses.

A call to action: Where do we go from here?

This virtual special issue of Sleep Health highlights the important work on racial-ethnic disparities in the field of sleep health and will be expanded over time to incorporate additional studies as new insights are published. The special issue also represents a call to action for sleep health researchers to address three critical gaps in the current literature. The first gap relates to the need for future studies to abandon race-ethnicity as a predictor of sleep health disparities. Instead, researchers should move to advance the field by modeling the multifaceted *racialized experiences* of individuals as the true predictors of sleep health disparities. The strong evidence for racial-ethnic group differences in sleep health warrants a deeper understanding of how individuals from underrepresented groups navigate daily stressors within their everyday lives. Scientists have already documented the wide-ranging negative correlates of racial discrimination within education, healthcare, and neighborhood contexts, including altered physiological states with implications for poor stress regulation⁴¹ and impaired sleep.⁴² Interestingly, researchers have found that the anticipation of, and perseveration about racial discrimination are linked to subjective sleep difficulty.²⁴ The U.S. Department of Health and Human Services' “*Healthy People 2030*” initiative identifies the following five domains of social determinants of health: economic stability; education access and quality; health care access and quality; neighborhood and built environment; and social and community context (U.S. Department of Health and Human Services).⁴³ These five domains provide a clear framework for researchers to examine how individuals' environmental conditions affect their sleep health.

The second gap concerns the need to “flip the script” from a focus on the individual as the agentic change factor and, instead, investigate the implications of macro-level changes (e.g., policies, equitable access to resources and services) to alleviate sleep health disparities. In their comprehensive analysis of societal barriers to experiencing well-being within a marginalizing society, Syed and McLean⁴⁴ state that:

Those who are in structurally privileged positions are motivated to maintain this narrative of individual effort, because it masks—by downplaying or even denying—the structural factors that restrict traditional success for those in marginalized positions, and it also

promotes their [i.e., White men in the U.S.] own success. With this background in mind, it becomes clear how notions of the good life, especially defined in terms of personal growth, converge with master narratives that prioritize individualism over context and connection. (pg. 8)

Consistent with Syed and McLean's call to prioritize context and connection over individualism, future research should design and evaluate macro-level interventions for improving sleep health among members of underrepresented and underserved communities in the U.S.

The third gap is the need for research that directly addresses the role of intersectionality of socio-demographic factors in sleep health, to best reflect the lived realities of individuals at various intersections of their social identities.⁴⁵ There is promise in recent studies that have examined the prevalence of short and long sleep across intersections of race-ethnicity and sexual identity among a nationally representative sample of U.S. adults. Furthermore, beyond the intersectionality of individuals' social identities across race-ethnicity, education, gender, sexuality etc., scholars have directed attention to examining *structural intersectionality* as an approach to understanding how societal systems of inequality at a macro level sustain disparities in health outcomes.⁴⁶ This approach is well aligned with the call to incorporate integrative transdisciplinary theoretical perspectives, such as critical race theory into research on sleep health disparities.⁴⁷ Incorporating intersectionality in sleep health disparities research will require that researchers use state-of-the-art theoretical and statistical models and consider holistic, lived experiences, instead of focusing on documenting group differences based solely on race-ethnicity categories.

Conclusion

Taken together, the studies included in this virtual special issue begin to form a roadmap for navigating the muddy waters in which sleep health disparities have persisted. Currently, there is a pressing need for research to describe the lived experiences of racial-ethnically diverse groups of individuals, so that we can move beyond just documenting "differences" between these groups. Sleep researchers should feel empowered to engage in rigorous research that examines sleep health as a bio-social marker of social justice. To address racial-ethnic disparities in sleep health, we will need to use this science to intervene upon the multi-level dynamics within socio-political spaces. Only then can we facilitate social justice and adequate, restorative sleep for all.

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