

Viewpoint

Sleep Health Disparities: A Promising Target for Preventing Suicide in Black Youth?

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ABSTRACT

Youth suicide is an urgent public health concern, particularly for Black youth, among whom suicide attempts and death have increased faster than any other racial or ethnic group. Ideal foci for suicide prevention interventions are risk factors that are malleable, dynamic, and proximal. Studies consistently identify poor sleep health as a risk factor for suicidal thoughts, attempts, and death. Herein, we assert that sleep health may therefore be a promising target for youth in general, and given racial disparities in sleep health, for Black youth in particular. Although efficacious sleep and circadian-focused interventions exist, data suggest poorer treatment response among racially and ethnically minoritized youth, possibly due to inadequate consideration of sleep health barriers specific to Black youth. The application of health-equity informed implementation science methods is needed to establish the feasibility and acceptability of a sleep intervention for Black youth at-risk for suicide. Such an approach may hold significant potential to improve sleep, ameliorate distress, and reduce suicide risk, while also enhancing access and uptake among Black youth.

KEYWORDS: suicide prevention; intervention; sleep health; race; black youth; disparities; implementation science

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PREVENTING SUICIDE IN BLACK YOUTH: WHERE TO START?

Suicide is the 2nd leading cause of death in youth [1]. Suicide attempts and death by suicide among non-Hispanic/Latinx African-American, Caribbean American and other Black American (hereafter, "Black") youth

in the US are increasing faster than any other racial or ethnic group. Black youth are also less likely to receive mental healthcare, highlighting glaring health disparities [2–4]. Unfortunately, little is known about optimal approaches to youth suicide prevention, and the few interventions demonstrating effectiveness were developed and tested with primarily non-Hispanic/Latinx White youth (“White”) [5]. As such, experts have urgently called for increased research on Black youth suicide, including a focus on culturally relevant risk factors and evidence-based interventions [4].

Intervention targets for suicide prevention are optimally identified through research on risk factors. Specifically, ideal foci for these interventions are readily measurable, empirically identified risk factors that are proximal, robust and modifiable [6]. While a host of well-established risk factors for youth suicide have been identified [7], few meet these criteria. Furthermore, risk factors specific to Black youth remain understudied [4], yet crucial to guide suicide prevention efforts in this population.

We assert that sleep health [8] is a promising target for youth suicide prevention in general, with particular promise for preventing suicide among Black youth and other minoritized populations. Primarily, sleep disturbances are measurable, malleable [9,10], and signal near-term (i.e., days to weeks) suicide risk in youth [11–13]. Studies establish a clear relationship among multiple subjective sleep disturbances (e.g., insomnia, hypersomnia) and poor sleep health (e.g., short and long sleep duration; irregular sleep patterns) in adolescents and suicidal thoughts and behaviors [14–17], as well as temporal links between sleep problems and death by suicide [18]. Objective data further support associations between sleep difficulties and acute risk for suicidal thoughts and behaviors [12,13]. Thus, poor sleep ranks among the expert consensus set of warning signs for suicide [19].

RACIAL DISPARITIES IN PEDIATRIC SLEEP HEALTH

While sleep changes are normative throughout child and adolescent development, studies consistently document gross racial disparities in sleep health. To highlight, shorter sleep duration, poorer sleep quality, and more variable sleep timing are all more prevalent in Black compared to White youth [20–22]. Multiple factors specific to Black youth contribute to these sleep health disparities [23,24]. Black youth are more likely than White youth to live in lower income neighborhoods [25,26] with greater exposure to sleep-disrupting environmental factors like increased light, noise, household crowding, and community violence [25,27].

The chronic stress of being “Black in America” that results from exposure to implicit bias and systematic racism increases physiological and psychological arousal [28], making it more difficult to sleep and manage environmental disruptions [24]. In a study of Black and White adolescents, community violence concerns were associated with shorter and poorer quality sleep, but only in Black youth [29]. In another study,

Black college students exhibited longer sleep onset latency and poorer sleep quality in the context of greater racial microaggressions [30]. Critically, these sleep health disparities are in turn directly linked to elevated risk for depression and suicidal thoughts and behaviors [16,31,32].

Thus, an effective sleep health-focused intervention may offer promise in decreasing Black youth suicide. This approach may be especially well-suited for Black youth, among whom mental health conditions and treatment are more stigmatized [33]. Although suicide attempts and death by suicide have increased among Black youth from 1991–2017, concurrent rates of suicidal thoughts and plans in this group have *decreased* [2], suggesting that assessing non-stigmatized, behavioral indices of suicide risk—like sleep—could both enhance identification of Black youth at-risk for suicidal behavior, and provide a malleable intervention target.

APPLYING HEALTH-EQUITY INFORMED IMPLEMENTATION SCIENCE METHODS TO TARGET SLEEP HEALTH IN PREVENTING BLACK YOUTH SUICIDE

Despite efficacious sleep and circadian-focused interventions, data suggest poorer treatment response among racially and ethnically minoritized youth [34,35], possibly due to limited integration of specific sleep-disrupting stressors such as bedtime hypervigilance related to experiencing racism [24,29,30]. Accordingly, acceptability and effectiveness of a sleep intervention for Black youth at-risk for suicide is contingent upon intervention and implementation strategies that carefully consider health disparities, socio-cultural and environmental factors, and sleep health barriers specific to Black youth [20,35–38].

Implementation science (ImS) has emerged to systematically identify and address barriers to uptake of evidence-based practices [39]. ImS frameworks and methods are increasingly applied to health-equity informed adaptations of evidence-based interventions [40–42]. To maximize intervention effectiveness and uptake, intervention design and adaptation research must be conducted with end-users and contexts in mind to ensure intervention strategies and delivery methods demonstrate acceptability, feasibility, and sustainability with health disparate populations [40]. This is optimally achieved through direct engagement of stakeholders, including Black youth, their parents/guardians, healthcare clinicians, and systems-level administrators. Using health-equity informed ImS methods to establish the feasibility and acceptability of a sleep intervention for youth at-risk for suicide has significant potential to improve sleep, ameliorate distress, and reduce suicide risk, while also enhancing access and uptake among Black youth. Applying health equity informed ImS methods will additionally ensure that resulting interventions can be integrated into community settings (e.g., primary care, schools, churches) to reach youth most in need of intervention.

FUTURE RESEARCH CONSIDERATIONS

To date, research on interventions targeting youth sleep and suicide risk has largely targeted insufficient sleep or insomnia [17], depression and anxiety [10,32], yet most youth at-risk for suicide present with a range of complex sleep disturbances and psychiatric comorbidities [43]. Furthermore, sleep intervention research rarely includes minoritized youth [44]. Thus, suicide prevention for Black youth should be: (1) transdiagnostic with respect to sleep difficulties and psychiatric disorders; (2) individualizable to the youth's specific sleep complaints; and (3) culturally and contextually relevant. Toward this aim, our group is adapting the Transdiagnostic Sleep and Circadian Intervention [45], an evidence-based, modularized treatment that targets a range of sleep and circadian difficulties, for Black adolescents at-risk for suicide, using health equity-informed ImS methods [42,46,47]. Similarly, other at-risk and marginalized populations may benefit from further intervention development research. For example, sexual minority youth (i.e., those with same-sex attraction and/or identify as transgender) have stark disparities in depression [48], suicidal thoughts and attempts [49,50], and poorer sleep health [51,52] compared to heterosexual, cisgender peers. The intersection of marginalized racial/ethnic and sexual minority status may further increase suicide risk [53]. Future studies should also seek to elucidate the specific mechanisms underlying the association between sleep difficulties and suicide risk in youth, with consideration of distinct contributions of social determinants of health for Black and other minoritized youth. Such data will meaningfully hone developmental theory on suicide risk (particularly proximal pathways from ideation to behavior [54]) to further enhance prevention efforts.

In sum, disproportionate increases in suicidal behaviors among Black youth in the US [2] are occurring within the context of mental health stigma, healthcare barriers, and health disparities [20,36,55] rooted in systemic racism. These efforts represent preliminary steps toward a potentially promising approach to a pressing public health need: the systematic development and evaluation of culturally relevant suicide prevention in Black youth. Given the benefits of sleep health in the context of adolescent discrimination [56], and evidence of disparities in sleep health and suicide risk in other populations, including sexual minority youth, we urge others to leverage the sleep-suicide link to inform prevention among other health disparate groups at-risk for suicide.

CONFLICTS OF INTEREST

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