Developing Concerns: The Mind after Midnight" Hypothesis

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Suicide is the second leading cause of death among youth aged 15-24 years in the US, and as pediatricians we need to play a leading role in suicide prevention. Current AAP guidelines promote suicide screening at least yearly for all patients ages 12 and above. We are all aware of well-established "distal" risk factors, such as childhood adversity and ACEs, parental and patient psychopathology, family history of suicidality, and prior suicide attempts, but these are "not actionable". However, understanding underlying "proximal" suicide risk factors could potentially enable us to intervene earlier than even the screening tools would suggest. That's where the "Mind after Midnight Hypothesis" comes in. This hypothesis suggests that disrupted sleep can acutely increase the risk for dysregulated behaviors through nocturnal wakefulness. We know that sleep deprivation induces altered cognitive functions, such as decreased mood, altered risk/reward processing, and social isolation.

Recent research reviewed by Geoffroy (J Clin Psychiatry, 85:2, June 2024) revealed "a 5-fold increase in suicide risk at 3 AM". Another study showed that teens who had a decrease in total sleep time and increase in sleep latency were both associated with a "death wish" the following day. In addition, 80% of individuals, admitted to a psychiatric emergency department in a third study, had altered dreams leading up to a suicidal crisis. There was a progression of altered dream content: bad dreams occurring 4 months before the crisis, followed by nightmares 3 months prior, and suicidal scenarios in dreams 1.5 months before the suicidal crisis. Therefore, asking your teen patients about recent changes to sleep latency, total sleep time and dream content may be an early warning sign to suicidal risk that you can use to suggest intervention strategies. These could include: referrals for mental health counseling, such as school based behavior health programs; information about virtual platforms, such as neverabother.org, CalHOPE, 988 Suicide and Crisis Lifeline, or Solunaapp.com; or consultation with Cal-MAP, which provides health care providers with child psychiatry consultation, training and community resources. These suggested interventions should be followed up to determine if the teen has followed through, and is improving.



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