



Early Adolescence: A Window of Opportunity for Educators to Support Positive Mental Health

RESEARCH-BASED RECOMMENDATIONS FOR MIDDLE-SCHOOL EDUCATORS
TO PROMOTE POSITIVE MENTAL HEALTH FOR EARLY ADOLESCENTS



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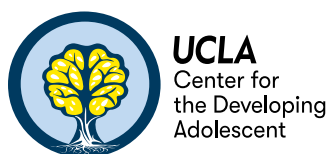
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Early Adolescence: A Window of Opportunity for Educators to Support Positive Mental Health

The middle school years provide an amazing opportunity to promote positive mental health. It will come as no surprise to educators that this is a unique time period in development. Youth face a number of new experiences, including greater independence, different kinds of relationships with friends and classmates, and changes to their bodies and brains. During this period, youth are especially impacted by these new experiences. Novel experiences can have a positive impact on mental health for some individuals while setting the stage for mental health challenges in others. The good news is that it is precisely because of this heightened sensitivity in early adolescence that efforts to promote positive mental health can have a particularly meaningful impact. This is an ideal time when educators and schools can provide effective supports and resources to help all youth thrive.

Early Adolescence is a Critical Time to Support Positive Mental Health

Early adolescence—roughly ages 10 to 13—is a time of exploration, discovery, and rapid learning. Many social, cognitive, and emotional changes occur, and key milestones of development happen simultaneously (see the Center for the Developing Adolescent’s [Core Science of Adolescence](#)). During these early years of adolescence, young people experience accelerated physical changes related to puberty, rapid brain development, changes in self-image, and more intense peer relationships. Their exposure to digital technology, social media, and other sources of information also increases. These changes shape young adolescents in both positive and negative ways and offer unique opportunities to support youth and promote positive mental health.^{1,2}

What is Mental Health?

Mental health includes our emotional, psychological, and social well-being. As summarized by [SAMHSA](#), mental health influences how we think, feel, and act. It is an important part of our overall health across our entire lives, and helps determine how we handle stress, relate to others, and make choices.

KEY CONCEPTS OF MENTAL HEALTH:

- Everyone has mental health just like we all have physical health. Mental health can be good, bad, or anywhere in between.
- Being mentally healthy involves feeling a range of emotions in response to experiences—it does not mean that we are always happy and never feel sad or worried.
- Challenging experiences (such as transitions in school or family life) can cause short-term mental health distress. Brief periods of distress in response to stressful events—even those that are relatively mild—are normal and healthy.
- Sadness or worry that is more extreme and does not get better with time can lead to mental illness like depression or anxiety.
- Over time, learning how to handle new situations that are both positive and negative can benefit mental health and improve well-being.

EMOTIONAL CHANGES DURING EARLY ADOLESCENCE

During early adolescence, young people are especially affected by social and emotional influences. As they navigate simultaneous physical, emotional, and social transitions, their emotional responses become more complex. New opportunities to explore independently, spend time with peers, and learn about oneself and the world elicit new emotions that are more acute than those felt earlier in childhood.³ Pubertal development can change the way that individuals experience and manage their emotions through its relationships with behavior⁴ and sleep⁵. For example, changes in the brain that occur during puberty can increase attention to social interactions and shift sleep patterns in such a way that youth tend to stay up and wake up later. Changes in the brain can also increase the intensity of emotions.⁶ Together, these areas of change in young adolescents' lives shape their emotions in overlapping ways and impact their overall mental health.

A PROMOTION AND PREVENTION FRAMEWORK

Our approach to early adolescent mental health focuses on a promotion and prevention framework (described in detail in [Appendix 1: A Promotion and Prevention Framework](#)). Our goal is to help educators promote positive mental health and prevent mental health challenges from becoming more severe over time. It is crucial that promotion and prevention strategies are accessible and actionable within education settings so that teachers can effectively

Surgeon General Advisory on Adolescent Mental Health

In a 2021 advisory, [Protecting Youth Mental Health](#), the Surgeon General provides specific resources to help schools and educators promote positive mental health outcomes and prevent mental health challenges.

and equitably support positive mental health for all young people during early adolescence.

In our discussion of promotion and prevention strategies, we focus primarily on depression and anxiety. Depression and anxiety disorders can occur when individuals focus on their internal thoughts and feelings to such a degree that they experience severe or long-term distress or impairment in their functioning (for example, excessive worry or rumination, chronic concern about how others see them, feeling hopeless or a lack of control). Actions including (1) screening for depression and anxiety symptoms, (2) intervening early when warning signs emerge, and (3) providing ongoing support can promote positive well-being and prevent depression and anxiety symptoms from worsening over time. Depression and anxiety disorders peak later in adolescence,⁷ which makes early adolescence an ideal time to support educators in using promotion and prevention strategies with their students.

Spotlight on School-based Programs Targeting Depression

Educators are particularly well-situated to help prevent depression during early adolescence. School-based programs to prevent and treat depression show particularly strong evidence of effectiveness (see [HEDCO Institute's analysis of school-based depression programs](#)). If schools choose to provide targeted prevention and intervention programs for students, those focused on depression are more successful than those focused on anxiety disorders.^{8,9}



Four Recommendations to Help Educators Support Positive Mental Health in Early Adolescence

Following are four recommendations designed to help educators promote positive mental health during early adolescence. These recommendations are informed by developmental science and fall within four key areas of early adolescent development:

- 1 Independence, exploration, and learning
- 2 Emotion and behavior regulation
- 3 Building strong relationships
- 4 Sleep

These four areas of development are important and distinct, but they also interact in critical ways. For example, healthy sleep habits can improve young people’s capacity to regulate emotional responses, and strong relationships can support youth as they explore, learn, and become more independent. Below we describe how developmental science informs each of these four areas of development and explain why each is important for mental health. We also highlight ways that these four areas interact and complement each other to promote positive development.

Key Areas of Early Adolescent Development and Importance for Mental Health

What does science tell us?	Why is this important for mental health?
1 Independence, exploration, and learning	
<ul style="list-style-type: none"> ▶ In early adolescence, youth are primed to discover new interests and master increasingly complex skills. ▶ New opportunities to explore interests, learn new skills, and take on greater responsibility help youth to be more independent and practice overcoming challenges. 	<ul style="list-style-type: none"> ▶ New experiences provide avenues for youth to build a positive sense of identity, find meaning and purpose, and establish long-term well-being. ▶ Missteps, failure, and disappointment can be an important part of learning to build essential social skills that promote positive peer interactions and healthy relationships outside of the family. ▶ Exposure to challenging activities that provoke a manageable level of anxiety is beneficial for mental health.^{10,11} ▶ It is common during early adolescence for young people to explore in ways that go beyond (or even conflict with) what they have learned.¹²
2 Emotion and behavior regulation	
<ul style="list-style-type: none"> ▶ Increasing abilities to recognize and manage emotions and behaviors allow early adolescents to manage stress and complex feelings and in productive ways. ▶ Youth manage their emotions and behaviors in ways that reflect their unique experiences, skills, and cultures. 	<ul style="list-style-type: none"> ▶ Learning to regulate emotion early on helps prevent negative mental health outcomes.¹³ ▶ When youth ignore or suppress emotions, they do not learn how to cope with stressful or highly emotional events. ▶ Social support helps youth regulate their emotions and promotes mental health.¹⁴ ▶ Youth who look older (bigger, taller, or further along in pubertal development) may face unfair expectations about their ability to control their emotions and behaviors.¹⁵

Key Areas of Early Adolescent Development and Importance for Mental Health

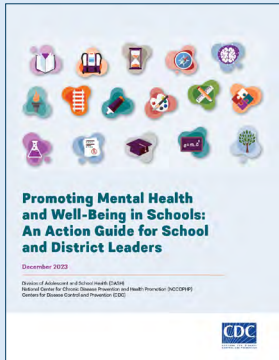
What does science tell us?	Why is this important for mental health?
3 Building strong relationships	
<ul style="list-style-type: none"> ▶ Social connections with adults (such as teachers, parents, and other caregivers) and positive peer relationships are critical to healthy development in early adolescence. 	<ul style="list-style-type: none"> ▶ Having trusting relationships with teachers, mentors and other caring adults is beneficial to mental health.^{16,17,18} ▶ Peer relationships become especially important as sensitivity to social feedback increases.^{19,20} ▶ Friendships and school belonging are linked to well-being²¹ and protect against negative mental health outcomes.²²
4 Sleep	
<ul style="list-style-type: none"> ▶ Sleep patterns shift during early adolescence. Youth may go to sleep later and wake up later but still need 9 to 10 hours of high-quality sleep per night.²³ The American Academy of Pediatrics recommends that middle and high schools start no earlier than 8:30 a.m. ▶ Young adolescents’ behaviors (such as digital technology use) and home environments (including light and noise exposure) can hinder duration and quality of sleep. 	<ul style="list-style-type: none"> ▶ High-quality sleep (that is, sleep that is sufficient, uninterrupted, and consistent) improves the ability to regulate emotions and behaviors, which then supports positive mental health.²⁴ ▶ Interventions to improve sleep are highly effective at reducing depression and anxiety disorders, as well as suicide.²⁵ ▶ At schools that have implemented later start times, students show less daytime sleepiness, better attendance and academic performance, and fewer mood concerns.²⁶ ▶ Sleep disruptions are one of the main ways that digital technology negatively impacts mental health in early adolescence^{27,28} (also see NSCA report on digital technology use in early adolescence).

In considering the following recommendations, it is crucial that schools and districts support teachers so that they have resources to effectively help their students. School administrators and districts can help ensure that teachers are aware of available resources and referral options for students.* Teachers need flexibility in developing their curricula and classroom activities so that they can incorporate strategies to promote positive mental health. As daily observers of early adolescents, teachers can monitor their students and help identify those who

could benefit from extra support or professional services. However, teachers are not mental health professionals and should not be expected to diagnose or treat their students. Teachers can implement some classroom-based interventions, but not without guidance. If we support teachers and provide essential guidance and resources, they can serve as invaluable caretakers of early adolescents’ positive development. **Teachers can be a crucial first line of defense against challenges that early adolescents face.**

**School-based resources are not equitable across districts. School administrators should ensure that teachers have easily accessible information about their available services and referral options (including free and publicly available community or state resources). Helping teachers take advantage of all resources available to them can help reduce the impact of district-based disparities on students.*

The CDC Mental Health Action Guide for School and District Leaders



A recent [guide](#) from the Centers for Disease Control and Prevention (CDC) describes specific strategies and resources for school and district leaders to promote students' positive mental health and prevent mental health problems.

SIX SCHOOL-BASED STRATEGIES:

- Increase students' mental health literacy
- Promote mindfulness
- Promote social, emotional, and behavioral learning
- Enhance connectedness among students, staff, and families
- Provide psychosocial skills training and cognitive behavioral interventions
- Support staff well-being

RECOMMENDATION 1:

SUPPORT POSITIVE EXPERIENCES OF INDEPENDENCE, EXPLORATION, AND LEARNING

Educators can provide opportunities for youth to take initiative in their learning, make their own decisions, and engage in age-appropriate exploration. As part of class activities, teachers can provide opportunities for oral and group presentations, use Socratic teaching styles that promote thinking and answering questions in real time, and incorporate lectures to give students practice with independent note taking. Opportunities to succeed *and fail* are good for long-term mental health. Educators should encourage independence and stand by to offer support when needed.

Educators can help their students successfully collaborate with and learn from peers. At school, students can practice successful peer interactions and learn group problem solving and conflict resolution. Teachers can provide opportunities for group work, but also be available to guide peer interactions when needed. When students work in groups, it is important to consider the composition of the students in each group. For example, youth who may be at higher risk for mental health challenges are more likely to be successful if they are assigned to groups with students who are skilled at supporting peers and encouraging opportunities for exploration.

Teachers can help address inequities in opportunities for students to practice independence and exploration during early adolescence. Teachers can increase awareness of free extracurricular opportunities that take place during school hours (for example, as electives) so that students' participation is not limited by their responsibilities outside of school (such as caring for siblings or chores). It is also important that teachers receive education about how inequitable disciplinary practices can unfairly impede some students' opportunities to explore and be independent. Disciplinary practices vary widely in U.S. schools based on students' race, sex, native language, and disability status (see the U.S. Department of Education Office for Civil Rights [2014 Data Snapshot on School Discipline](#)). Educators can work in partnership with their schools to evaluate disciplinary practices (including school expulsions, suspensions, and other punitive measures), identify systemic inequities, and effectively address problematic patterns.²⁹

RECOMMENDATION 2:

IMPLEMENT STRATEGIES TO SUPPORT HEALTHY REGULATION OF EMOTION AND BEHAVIOR

Teachers can help early adolescents recognize and manage their emotions and behaviors in healthy ways as a part of daily classroom activities. A classroom setting provides a reliable place where all students can learn and practice emotion- and

self-regulation techniques without being limited by inequities in circumstances or resources that they may face in their lives outside of school.

Teachers can also support students' developing social skills. Younger adolescents, especially those who are more sensitive to rejection, have a harder time regulating their emotions in response to social interactions. As a result, younger adolescents may need more support navigating emotionally charged peer relationships than older adolescents.^{30,31} Learning to successfully manage emotions, behaviors, and social responses helps promote positive development in early adolescence and reduces negative outcomes over time.

Classroom-based mindfulness interventions can be an equitable and effective strategy to help students regulate their emotions and behavior.

According to the CDC, mindfulness is the practice of being fully aware of one's thoughts and feelings in a moment, without judging them or negatively reacting to them. Practicing mindfulness has benefits for many aspects of positive mental health. When implemented using science-based methods,* classroom-based mindfulness interventions help students build skills involved in emotion and behavior regulation,^{32,33,34} improve students' overall well-being,³⁵ and help students from racially diverse backgrounds to effectively regulate stress.³⁶ Classroom-based mindfulness activities are also more accessible and thus more equitable than many other positive interventions. They do not require any specific home environment or free time outside of school hours (see CDC's recommendations for [promoting mindfulness](#) at school).

Teachers can take advantage of existing resources to help students learn to successfully regulate their emotions and behavior. The [CASEL Framework](#) offers specific strategies that educators can use to teach self-awareness, behavior management, and emotion regulation. Evidence shows that these strategies help youth build social and emotional skills, increase academic achievement, and reduce negative mental health outcomes.³⁷ Public health agencies like the CDC also provide [resources and](#)

[toolkits](#) to help educators teach their students self- and emotion-regulation skills.

RECOMMENDATION 3:

ENCOURAGE YOUTH TO BUILD STRONG RELATIONSHIPS

Teachers should be intentional in building strong relationships with their students. Positive relationships are characterized by trust, warmth, mutual respect, and low levels of conflict. To build these relationships, teachers can create opportunities to connect one-on-one with their students and facilitate respectful classroom debate about diverse topics. They can also encourage conversations about complex emotions and social situations (including issues related to mental health when appropriate). Strong relationships with teachers can help students build strong relationships with other adults as well. Over time, the support system that young people build during early adolescence through meaningful connections with adults can have long-lasting benefits for positive mental health.

Teachers should help students develop social skills and build strong peer relationships. Educators can encourage their students to build strong peer relationships by teaching them to communicate effectively with each other, work cooperatively toward shared goals, and engage in group activities that rely on mutual trust, understanding, and respect.

Younger adolescents tend to be less able to effectively regulate their responses to social situations compared with older adolescents. Therefore, teacher support of peer relationships is especially important in middle school.^{38,39} Teachers can also have a positive influence on peer relationships during early adolescence by facilitating close, supportive relationships. Although girls tend to have friendships with higher levels of intimacy compared with boys, who often focus more on shared activities, all early adolescents benefit from supportive peer relationships.⁴⁰

By helping students form strong relationships at school, teachers can contribute to a more positive school environment overall. Building strong

*See a recent [New York Times editorial](#) outlining how poor implementation can render mindfulness activities ineffective or even detrimental.

relationships in the classroom contributes to a safe social climate at school where students feel a high sense of trust with their teachers and peers. This heightened trust can promote exploration and learning because students feel supported to make mistakes as they try new activities. These relationships can also serve a protective role when students face difficult social situations (such as bullying)⁴¹ that can negatively impact their mental health. Helping to create a more positive classroom dynamic can help ensure that all students feel comfortable building supportive relationships early on in adolescence.

RECOMMENDATION 4:

IMPLEMENT PRACTICES THAT SUPPORT HEALTHY SLEEP HABITS

Teachers, students, and parents should be given more information about young people’s need for sleep during early adolescence. When young adolescents’ sleep schedule is accommodated and they get high-quality sleep, they are at lower risk for negative mental health outcomes.⁴² For youth experiencing depression or anxiety symptoms or other mental health challenges during early adolescence, improving sleep is one of the most effective early intervention strategies to prevent these challenges from worsening.⁴³ Educators can help students understand the value of sleep and teach them simple strategies to improve sleep (for example, by not using screens right before bed).

Educators should take a supportive approach when students are tired or sleeping in class and avoid punitive consequences. When students fall asleep in class, it is often a result of barriers to high-quality sleep at home (which may include irregular parent work schedules or a lack of quiet, dark spaces for sleeping). In these cases, punitive discipline does not serve any benefit and can worsen student-teacher relationships.⁴⁴ Sleeping in class is an indication that a student needs support and could be at risk for negative mental health outcomes. It is not a behavior that warrants discipline. By learning about barriers to high-quality sleep, teachers can support their students and ensure that they do not exacerbate existing inequities in sleep health and disciplinary practices.

With appropriate support, teachers can implement classroom-based monitoring of students’ sleep health. Some existing, research-based measures (e.g., the Behavioral Assessment System for Children [BASC-3]⁴⁵) are simple enough to be administered in a classroom setting. With appropriate training and support, educators can ask basic questions about insomnia, excessive sleep, and practices that impact sleep (such as bedtime, nightly routines, and evening screen time) in order to assess their students’ overall sleep health. With school and district support, teachers can then incorporate lessons related to the importance of sleep and healthy sleep practices into their classroom activities, thereby promoting positive mental health outcomes.⁴⁶ Monitoring sleep practices could also help teachers and schools identify students who are in need of evidence-based treatment to improve sleep behavior.⁴⁷

Overall Takeaways for Educators

Early adolescence is a time when establishing positive mental health is particularly important for future development. Middle-school educators can play a central role in promoting each young person’s well-being. We owe it to teachers, their students, and society to support educators so that they can use their expertise and experience to help all young people thrive. The recommendations that we propose here focus on four specific areas of early adolescent development in which educators can have a meaningful, positive impact on mental health:

- 1 Independence, exploration, and learning**
- 2 Emotion and behavior regulation**
- 3 Building strong relationships**
- 4 Sleep**

Together, the recommendations for each of these areas of development are intended to help educators be proactive in promoting early adolescents’ positive mental health and know how to intervene early when mental health challenges arise. It is essential that school administrators and districts ensure that teachers have the support and resources needed to implement effective strategies to help their students.

Continuing Education Opportunities for Educators

Continuing education is an important strategy to help educators build skills that effectively promote positive mental health and wellness in their students. Continuing education is popular among educators, and opportunities to develop actionable skills that go beyond knowledge building are growing rapidly. The [graduate microcredential in child behavioral health](#) at the Ballmer Institute for Children's Behavioral Health is just one example of a continuing education program that teaches educators evidence-based techniques to promote their students' health and well-being.

SUMMARY: Recommendations for Educators to Support Positive Mental Health During Early Adolescence

RECOMMENDATION 1: SUPPORT POSITIVE EXPERIENCES OF INDEPENDENCE, EXPLORATION, AND LEARNING

- Educators can provide opportunities for youth to take initiative in their learning, make their own decisions, and engage in age-appropriate exploration.
- Educators can help their students successfully collaborate with and learn from peers.
- Teachers can help address inequities in opportunities for students to practice independence and exploration during early adolescence.

RECOMMENDATION 2: IMPLEMENT STRATEGIES TO SUPPORT HEALTHY REGULATION OF EMOTION AND BEHAVIOR

- Teachers can help early adolescents recognize and manage their emotions and behaviors in healthy ways as a part of daily classroom activities.
- Classroom-based mindfulness interventions implemented using research-based methods can be an equitable and effective strategy to help students regulate their emotions and behavior.
- Teachers can take advantage of existing resources to help students learn to successfully regulate their emotions and behavior.

RECOMMENDATION 3: ENCOURAGE YOUTH TO BUILD STRONG RELATIONSHIPS

- Teachers should be intentional in building strong relationships with their students.
- Teachers should help students develop social skills and build strong peer relationships.
- By helping students form strong relationships at school, teachers can contribute to a more positive school environment overall.

RECOMMENDATION 4: IMPLEMENT PRACTICES THAT SUPPORT HEALTHY SLEEP HABITS

- Teachers, students, and parents should be given more information about young people's need for sleep during early adolescence.
- Educators should take a supportive approach when students are tired or sleeping in class and avoid punitive consequences.
- With appropriate support, teachers can implement classroom-based monitoring of students' sleep health.

APPENDIX 1: A PROMOTION AND PREVENTION FRAMEWORK

We recommend approaching early adolescent mental health through a promotion and prevention framework. Specifically, the following measures should be used to *promote* positive mental health and *prevent* negative outcomes. These measures are especially important for youth from groups that are at higher risk for mental health challenges (including those in the child welfare system and LGBTQ+ youth) and those for whom early warning signs and progression of symptoms are chronically underdetected (such as youth of color and youth living in poverty). These promotion and prevention practices should be prioritized for all youth during early adolescence and made available in ways that promote accessibility and equity of services.

SYSTEMATIC SCREENING FOR MENTAL HEALTH CONCERNS

Screening helps to identify youth who are exhibiting early signs of mental health challenges. Screening is particularly beneficial for youth from higher-risk and underdetected groups including youth of color and those who are experiencing symptoms that may be easily overlooked (such as feelings of sadness or wanting to harm oneself; see [Suicide Risk and Response](#), below). Once screening practices are initiated, prompt and consistent

follow-up is essential for any student identified via screening processes.

INTERVENTION AND SUPPORT FOR EARLY ADOLESCENTS WHO NEED IT

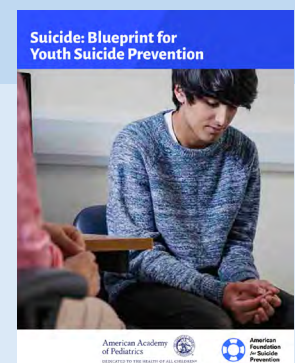
Youth who experience mental health challenges or display early signs of depression and anxiety disorders should be referred to a school-based support professional (for example, a school psychologist, counselor, or social worker) or a community-based counselor or family therapist. It is important that youth are directed to free or low-cost professional support and other resources to promote equity and reduce barriers to receiving services and treatment. Support should be provided to educators so that they know when and where to refer their students for services.

INTERVENTIONS AND OTHER SUPPORTS APPROPRIATE FOR AN INDIVIDUAL'S IDENTITY AND CULTURE

A young person's priorities, values, and emotional sensitivities during early adolescence will be impacted by their personal identity, culture, religion, and environment. Measures to promote positive mental health and provide interventions and supports should reflect these individual differences so as to be most effective.^{48,49}

Suicide Risk and Response

For detailed information, recommendations, and resources related to suicide prevention and crisis response, please refer to [Suicide: Blueprint for Youth Suicide Prevention](#), developed by the American Academy of Pediatrics in collaboration with the American Foundation for Suicide Prevention and the National Institute of Mental Health.



REFERENCES

- 1 Backes, E. P., & Bonnie R.J. (2019). National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Division of Behavioral and Social Sciences and Education; Board on Children, Youth, and Families; Committee on the Neurobiological and Socio-behavioral Science of Adolescent Development and Its Applications. *The Promise of Adolescence: Realizing Opportunity for All Youth*. Washington DC: National Academies Press.
- 2 Dahl, R., Allen, N., Wilbrecht, L. & Suleiman, L., B. (2018). Importance of investing in adolescence from a developmental science perspective. *Nature* 554, 441-450. <https://doi.org/10.1038/nature25770>
- 3 Silvers, J. A., McRae, K., Gabrieli, J. D. E., Gross, J. J., Remy, K. A., & Ochsner, K. N. (2012). Age-related differences in emotional reactivity, regulation, and rejection sensitivity in adolescence. *Emotion*, 12(6), 1235-1247. <https://doi.org/10.1037/a0028297>
- 4 Bailen, N. H., Green, L. M., & Thompson, R. J. (2019). Understanding emotion in adolescents: A review of emotional frequency, intensity, instability, and clarity. *Emotion Review*, 11(1), 6373. <https://doi.org/10.1177/1754073918768878>
- 5 Lustig, K. A., Cote, K. A., & Willoughby, T. (2021). The role of pubertal status and sleep satisfaction in emotion reactivity and regulation in children and adolescents. *Sleep Advances*, 2(1) 1-10. <https://doi.org/10.1093/sleepadvances/zpab003>
- 6 Crone, E., & Dahl, R. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nat Rev Neurosci* 13, 636-650. <https://doi.org/10.1038/nrn3313>
- 7 Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Pablo, G. S., Shin, J. I., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V., Correll C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, 27, 281-295. <https://doi.org/10.1038/s41380-021-01161-7>
- 8 Gee, B., Reynolds, S., Carroll, B., Orchard, F., Clarke, T., Martin, D., Wilson J., & Pass, L. (2020). Practitioner review: Effectiveness of indicated school-based interventions for adolescent depression and anxiety—a meta-analytic review. *Journal of Child Psychology and Psychiatry*, 61(7), 739-756. <https://doi.org/10.1111/jcpp.13209>
- 9 Hugh-Jones, S., Beckett, S., Tumelty, E., & Mallikarjun, P. (2021). Indicated prevention interventions for anxiety in children and adolescents: a review and meta-analysis of school-based programs. *Eur Child Adolesc Psychiatry* 30, 849-860. <https://doi.org/10.1007/s00787-020-01564-x>
- 10 Brown, L. A., Belli, G., Suzuki, N., Capaldi, S., & Foa, E. B. (2020). Reduction in suicidal ideation from prolonged exposure therapy for adolescents. *Journal of Clinical Child & Adolescent Psychology*, 49(5), 651-659, <https://doi.org/10.1080/15374416.2019.1614003>
- 11 Whiteside, S. P. H., Ollendick, T. H., & Biggs, B. K. (2020). *Exposure therapy for child and adolescent anxiety and OCD*. New York: Oxford University Press.
- 12 Wilbrecht, L., & Davidow, J. Y. (2024). Goal-directed learning in adolescence: neurocognitive development and contextual influences. *Nature Reviews Neuroscience*, 25, 176-194. <https://doi.org/10.1038/s41583-023-00783-w>
- 13 Cavicchioli, M., Tobia, V., & Ogliari, A. (2023). Emotion regulation strategies as risk factors for developmental psychopathology: A meta-analytic review of longitudinal studies based on cross-lagged correlations and panel models. *Res Child Adolesc Psychology*, 51, 295-315. <https://doi.org/10.1007/s10802-022-00980-8>
- 14 DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., Lockerd, E. M., & Moran, B. L. (2002). Getting by with a little help from self and others: Self-esteem and social support as resources during early adolescence. *Developmental Psychology*, 38(5), 822-839. <https://doi.org/10.1037/0012-1649.38.5.822>
- 15 Epstein, R., Blake, J. J., & Gonzalez, T. (2017). Girlhood interrupted. The erasure of Black girls' childhood. <http://dx.doi.org/10.2139/ssrn.3000695>
- 16 Deutsch, N. L., Reitz-Krueger, C. L., Henneberger, A. K., Futch Ehrlich, V. A., & Lawrence, E. C. (2017). "It gave me ways to solve problems and ways to talk to people": Outcomes from a combined group and one-on-one mentoring program for early adolescent girls. *Journal of Adolescent Research*, 32(3), 291-322. <https://doi.org/10.1177/0743558416630813>
- 17 Gordon, J., Downey, J., & Bangert, A. (2013). Effects of a school-based mentoring program on school behavior and measures of adolescent connectedness. *School Community Journal*, 23(2), 227-250.
- 18 Murray, A. L., Obsuth, I., Speyer, L., Murray, G., McKenzie, K., Eisner, M., & Ribeaud, D. (2021). Developmental cascades from aggression to internalizing problems via peer and teacher relationships from early to middle adolescence. *Journal of Youth and Adolescence*, 50, 663-673. <https://doi.org/10.1007/s10964-021-01396-1>
- 19 Somerville, L. H. (2013). The teenage brain: Sensitivity to social evaluation. *Current Directions in Psychological Science*, 22, 121-127. <https://doi.org/10.1177/0963721413476512>

- 20 Wong, N. M. L., Yeung, P. P. S., and Lee, T. M. C. (2018). A developmental social neuroscience model for understanding loneliness in adolescence. *Social Neuroscience*, 13, 94-103. <https://doi.org/10.1080/17470919.2016.1256832>
- 21 Mitic, M., Woodcock, K. A., Amering, M., Krammer, I., Stiehl, K. A., Zehetmayer, S., & Schrank, B. (2021). Toward an integrated model of supportive peer relationships in early adolescence: A systematic review and exploratory meta-analysis. *Frontiers in Psychology*, 12, 589403. <https://doi.org/10.3389/fpsyg.2021.589403>
- 22 Rose, I. D., Lesesne, C. A., Sun, J., Johns, M. M., Zhang, X., & Hertz, M. (2024). The relationship of school connectedness to adolescents' engagement in co-occurring health risks: A meta-analytic review. *The Journal of School Nursing*, 40(1), 58-73. <https://doi.org/10.1177/10598405221096802>
- 23 Crowley, S. J., Wolfson, A. R., Tarokh, L., & Carskado, M. A. (2018). An update on adolescent sleep: New evidence informing the perfect storm model. *Journal of Adolescence*, 67(1), 55-65. <https://doi.org/10.1016/j.adolescence.2018.06.001>
- 24 Crowley, S. J., Wolfson, A. R., Tarokh, L., & Carskado, M. A. (2018). An update on adolescent sleep: New evidence informing the perfect storm model. *Journal of Adolescence*, 67(1), 55-65. <https://doi.org/10.1016/j.adolescence.2018.06.001>
- 25 Blake, M. J., & Allen, N. B. (2020). Prevention of internalizing disorders and suicide via adolescent sleep interventions. *Current Opinion in Psychology*, 34, 37-42. <https://doi.org/10.1016/j.copsyc.2019.08.027>
- 26 Barlaan, D. R., Pangelinan, B. A., Johns, A., Schweikhard, A., & Cromer, L. D. (2022). Middle school start times and young adolescent sleep, behavioral health, and academic performance outcomes: A narrative review. *Journal of Clinical Sleep Medicine*, 18(11), 2681-2694. <https://doi.org/10.5664/jcsm.10224>
- 27 Alonzo, R., Hussain, J., Stranges, S., & Anderson, K. K. (2021). Interplay between social media use, sleep quality, and mental health in youth: A systematic review. *Sleep Medicine Reviews*, 56, <https://doi.org/10.1016/j.smrv.2020.101414>
- 28 Li, X., Buxton, O. M., Lee, S., Chang, A. M., Berger, L. M., & Hale, L. (2019). Sleep mediates the association between adolescent screen time and depressive symptoms. *Sleep Medicine*, 57, 51-60. <https://doi.org/10.1016/j.sleep.2019.01.029>
- 29 McIntosh, K., Girvan, E. J., Fairbanks Falcon, S., McDaniel, S. C., Smolkowski, K., Bastable, E., Santiago-Rosario, M. R., Izzard, S., Austin, S. C., Nese, R. N. T., & Baldy, T. S. (2021). Equity-focused PBIS approach reduces racial inequities in school discipline: A randomized controlled trial. *School Psychology*, 36(6), 433. <https://doi.org/10.1037/spq000466>
- 30 Rosen, M. L., Sheridan, M. A., Sambrook, K. A., Dennison, M. J., Jenness, J. L., Askren, M. K., Meltzoff, A. N., & McLaughlin, K. A. (2018). Salience network response to changes in emotional expressions of others is heightened during early adolescence: relevance for social functioning. *Developmental Science*, 21(3), e12571. <https://doi.org/10.1111/desc.12571>
- 31 Silvers, J. A., McRae, K., Gabrieli, J. D. E., Gross, J. J., Remy, K. A., & Ochsner, K. N. (2012). Age-related differences in emotional reactivity, regulation, and rejection sensitivity in adolescence. *Emotion*, 12(6), 1235-1247. <https://doi.org/10.1037/a0028297>
- 32 Baelen, R. N., Gould, L. F., Felver, J. C., Schussler, D. L., & Greenberg, M. T. (2023). Implementation reporting recommendations for school-based mindfulness programs. *Mindfulness* 14, 255-278. <https://doi.org/10.1007/s12671-022-01997-2>
- 33 Felver, J. C., Cary, E. L., Helminen, E. C. Schutt, M. K. A., Gould, L. F., Greenberg, M. T., Roeser, R. W. Baelen, R. N., & Schussler, D. L. (2023). Identifying core program components of mindfulness-based programming for youth: Delphi approach consensus outcomes. *Mindfulness* 14, 279-292. <https://doi.org/10.1007/s12671-022-02015-1>
- 34 Felver, J. C., Celis-de Hoyos, C. E., Tezanos, K., & Singh, N. N. (2016). A systematic review of mindfulness-based interventions for youth in school settings. *Mindfulness*, 7(1), 34-45. <https://doi.org/10.1007/s12671-015-0389-4>
- 35 McKeering, P., & Hwang, Y.S. (2019). A systematic review of mindfulness-based school interventions with early adolescents. *Mindfulness*, 10, 593-610. <https://doi.org/10.1007/s12671-018-0998-9>
- 36 Helminen, E. C., Zhang (张晓燕), X., Clawson, A. J., Morton, M. L., Cary, E. L., Sinagar, S. E., Janack, P., & Felver, J. C. (2022). Stress-buffering effects of mindfulness programming for adolescents in schools during periods of high- and low-stress. *ECNU Review of Education*, 0(0). <https://doi.org/10.1177/20965311221100563>
- 37 Ross, K. M., & Tolan, P. (2018). Social and emotional learning in adolescence: Testing the CASEL Model in a normative sample. *The Journal of Early Adolescence*, 38(8), 1170-1199. <https://doi.org/10.1177/0272431617725198>
- 38 Rosen, M. L., Sheridan, M. A., Sambrook, K. A., Dennison, M. J., Jenness, J. L., Askren, M. K., Meltzoff, A. N., & McLaughlin, K. A. (2018). Salience network response to changes in emotional expressions of others is heightened during early adolescence: relevance for social functioning. *Developmental Science*, 21(3), e12571. <https://doi.org/10.1111/desc.12571>
- 39 Silvers, J. A., McRae, K., Gabrieli, J. D. E., Gross, J. J., Remy, K. A., & Ochsner, K. N. (2012). Age-related differences in emotional reactivity, regulation, and rejection sensitivity in adolescence. *Emotion*, 12(6), 1235-1247. <https://doi.org/10.1037/a0028297>

- 40 Furman, W., & Rose, A. J. (2015). Friendships, romantic relationships, and peer relationships. In M. E. Lamb & R. M. Lerner (Eds.), (*Handbook of child psychology and developmental science: Socioemotional processes* 7th ed., pp. 932–974). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118963418.childpsy322>
- 41 Tsomokos, D. I., & Slavich, G. M. (2024). Bullying fosters interpersonal distrust and degrades adolescent mental health as predicted by Social Safety Theory. *Nat. Mental Health*, 2, 328-336. <https://doi.org/10.1038/s44220-024-00203-7>
- 42 Crowley, S. J., Wolfson, A. R., Tarokh, L., & Carskado, M. A. (2018). An update on adolescent sleep: New evidence informing the perfect storm model. *Journal of Adolescence*, 67(1), 55-65. <https://doi.org/10.1016/j.adolescence.2018.06.001>
- 43 Blake, M. J., & Allen, N. B. (2020). Prevention of internalizing disorders and suicide via adolescent sleep interventions. *Current Opinion in Psychology*, 34, 37-42. <https://doi.org/10.1016/j.copsy.2019.08.027>
- 44 Holdaway, A. S., & Becker, S. P., (2018). Children’s sleep problems are associated with poorer student-teacher relationship quality. *Sleep Medicine*, 47, 100-105. <https://doi.org/10.1016/j.sleep.2017.12.001>
- 45 Reynolds, C. R., & Kamphaus, R. W. (2015). *BASC-3: Behavior assessment system for children, third edition* Bloomington, MN: NCS Pearson, Inc.
- 46 Rigney, G., Watson, A., Gazmararian, J., & Blunden, S. (2021). Update on school-based sleep education programs: How far have we come and what has Australia contributed to the field? *Sleep Medicine*, 80, 134-157. <https://doi.org/10.1016/j.sleep.2021.01.061>
- 47 Ma, Z. R., Shi, L. J., & Deng, M. H. (2018). Efficacy of cognitive behavioral therapy in children and adolescents with insomnia: A systematic review and meta-analysis. *Brazilian Journal of Medical and Biological Research*, 51(6), e7070. <https://doi.org/10.1590/1414-431x20187070>
- 48 Fazel, M., & Betancourt, T. S. (2017). Preventive mental health interventions for refugee children and adolescents in high-income settings. *The Lancet Child & Adolescent Health*, 2(2), 121-132. [https://doi.org/10.1016/S2352-4642\(17\)30147-5](https://doi.org/10.1016/S2352-4642(17)30147-5)
- 49 Wang, C., Do, K. A., Frese, K., & Zheng, L. (2019). Asian immigrant parents’ perception of barriers preventing adolescents from seeking school-based mental health services. *School Mental Health*, 11, 364-377. <https://doi.org/10.1007/s12310-018-9285-0>