Pediatric Emotional Problems in a Time of Stress

6/2/23 Daniel S. Pine, M.D.





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OBJECTIVES

- 1. Describe data on relations between pediatric & adult mental health problems.
- 2. Identify major risk factors for persistent problems in youth.
- 3. Identify approaches that might reduce risk for persistence in youth with emotional problems.



Outline

- Outcome of Disorders
- Stress & Recent Increase in Disorders

Risk & Reduction of Persistence



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Risk & Reduction of Persistence

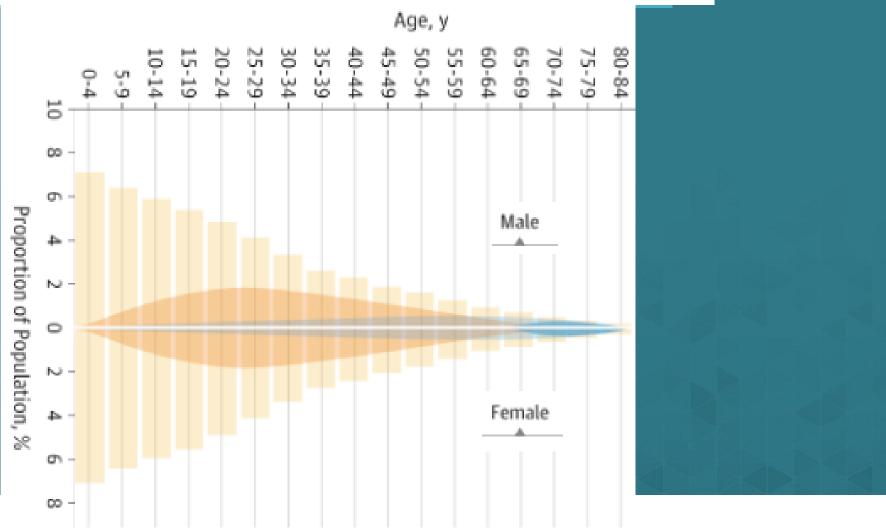


Terrie E. Moffitt, PhD Avshalom Caspi, PhD

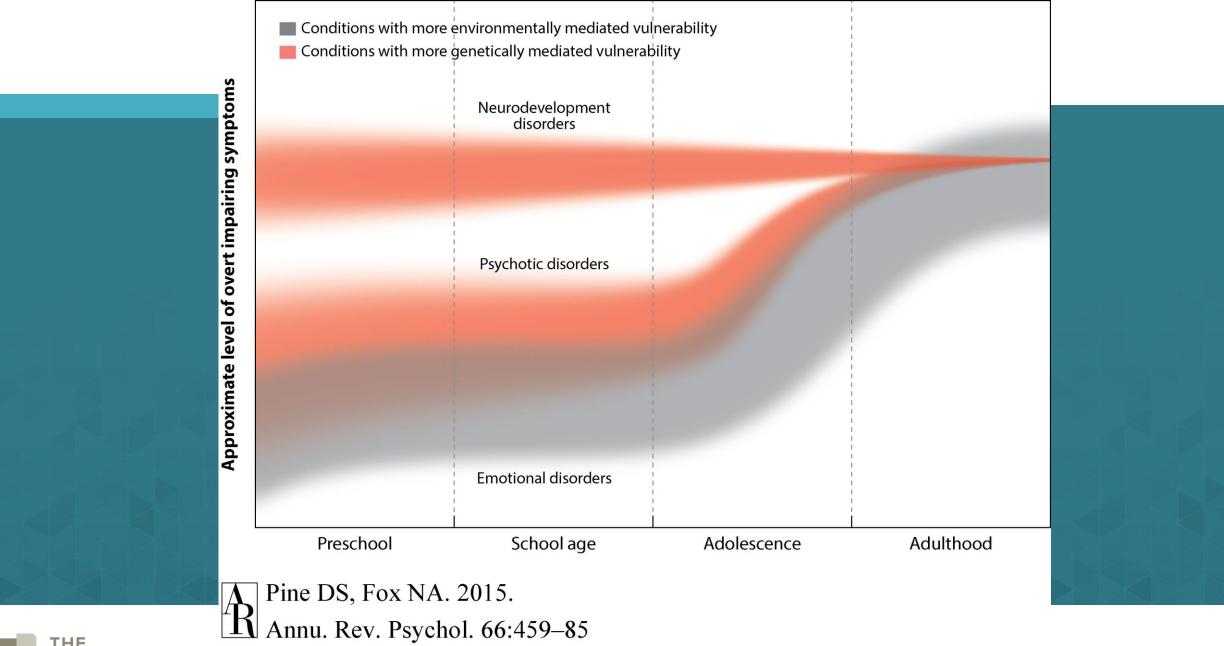
VIEWPOINT

Psychiatry's Opportunity to Prevent the Rising Burden of Age-Related Disease





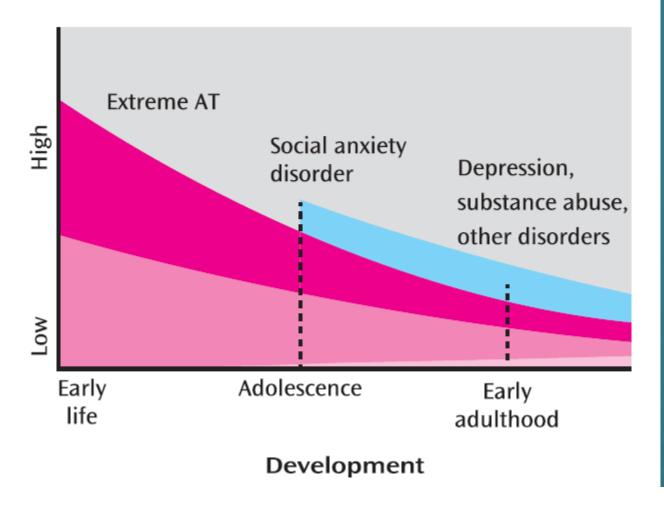






Children with extreme AT are at risk for psychopathology across the lifespan









	Disorder as	Adults?	
Disorder as Adolescents?	No	Yes	
No	390	36	426
Yes	191	62	253
	581	98	679



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Bottom Line

Disorders are very common in childhood

Most remit

Those that persist account for most adult problems



Outline

- Stress & Recent Increase in Disorders

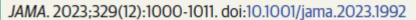


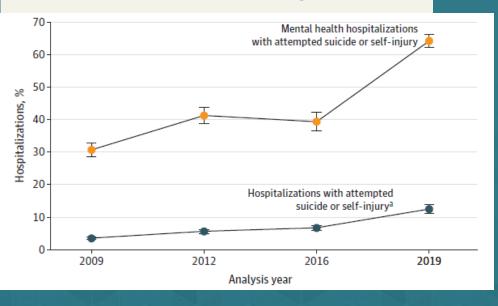
Rate of Problems is Increasing

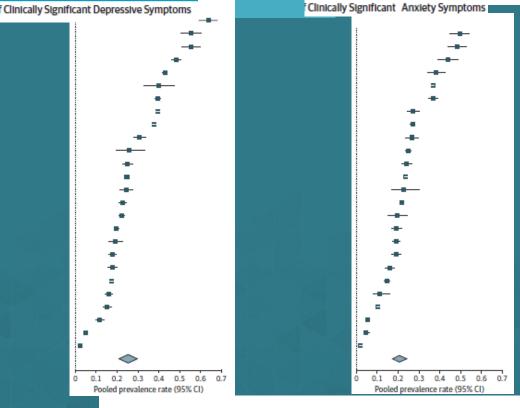
JAMA | Original Investigation

Pediatric Mental Health Hospitalizations at Acute Care Hospitals in the US, 2009-2019

Mary Arakelyan, MPH; Seneca Freyleue, MS; Divya Avula, MPH; Jennifer L. McLaren, MD; A. James O'Malley, PhD; JoAnna K. Leyenaar, MD, PhD, MPH







JAMA Pediatrics | Original Investigation

Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents During COVID-19 A Meta-analysis

Nicole Racine, PhD, RPsych; Brae Anne McArthur, PhD, RPsych; Jessica E. Cooke, MSc; Rachel Eirich, BA; Jenney Zhu, BA; Sheri Madigan, PhD, RPsych



Role of Diversity

Significant Underserved Populations Exist

Not enough & Right Kind of Services Available

Unique Stressors

Need for Better Cultural Awareness



What Predicts Persistence?

Presentation (e.g., severity, comorbidity)

Adverse Events; Uncontrolled Stress; Underserved

Confront Circumstances that are Stressful



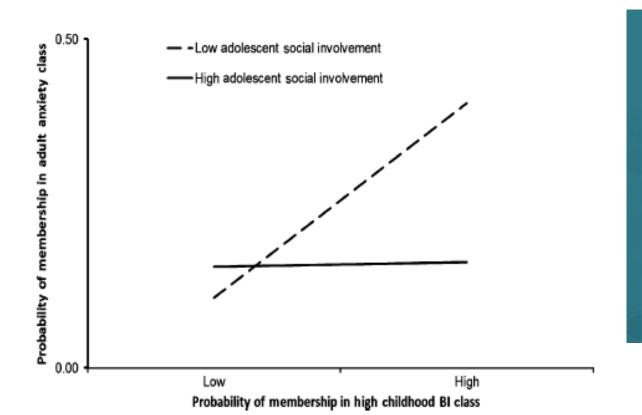
Early childhood behavioral inhibition, adult psychopathology and the buffering effects of adolescent social networks: a twenty-year prospective study

Tahl I. Frenkel, Nathan A. Fox, Daniel S. Pine, Olga L. Walker, Kathryn A. Degnan, and Andrea Chronis-Tuscano

*JOURNAL GCHILD PSYCHOLOGY AND PSYCHIATRY

doi:10.1111/jcpp.12390

Journal of Child Psychology and Psychiatry 56:10 (2015), pp 1065-1073





Outline

- - Risk & Reduction of Persistence



When Do You Worry?

Inability to overcome periods of disturbance

Prolonged & Persistent

Impairment



Prevention

• Universal/Primary (e.g., seat belts; growth-mindset; school start times)

Selective/Secondary (e.g., screen & treat anxiety symptoms)

• Indicated/Tertiary (e.g., screen & treat MDD)

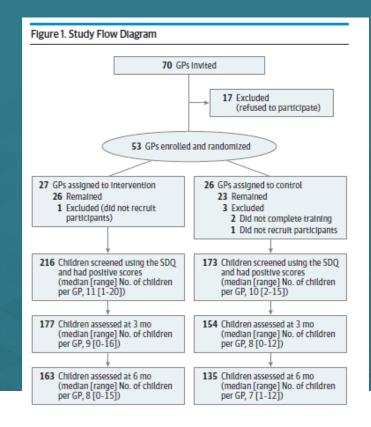


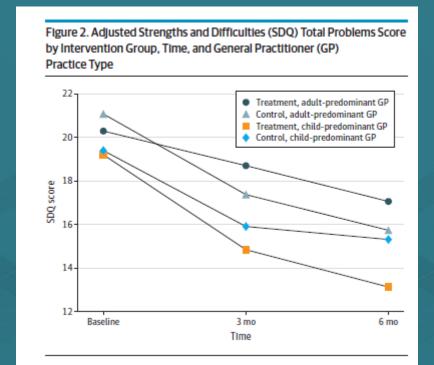
Effect of General Practitioner Training in a Collaborative Child Mental Health Care Program on Children's Mental Health Outcomes

in a Low-Resource Setting
A Cluster Randomized Trial

JAMA Psychiatry. 2023;80(1):22-30. doi:10.1001/jamapsychiatry.2022.3989 Published online November 30. 2022.

Vandad Sharifi, MD; Zahra Shahrivar, MD; Hadi Zarafshan, PhD; Sheida Beiky Ashezary, BA; Fariba Arabgol, MD; Mojgan Khademi, MD; Morteza Jafarinia, MD; Ahmad Hajebi, MD; Farid Abolhassani, MD; Soheila Emami, MD; Ali Beiki Ashkezari, BA; Elizabeth A. Stuart, PhD; Ramin Mojtabai, MD; Lawrence Wissow, MD







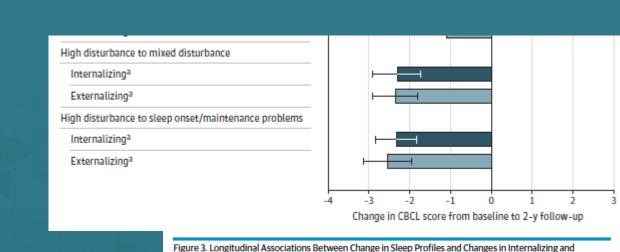
Physical Activity Interventions to Alleviate Depressive Symptoms in Children and Adolescents

A Systematic Review and Meta-analysis

Francesco Recchia, MSc; Joshua D. K. Bernal, BSc; Daniel Y. Fong, PhD; Stephen H. S. Wong, PhD; Pak-Kwong Chung, DPE; Derwin K. C. Chan, PhD; Catherine M. Capio, PhD; Clare C. W. Yu, PhD; Sam W. S. Wong, DPT; Cindy H. P. Sit, PhD; Ya-Jun Chen, PhD; Walter R. Thompson, PhD; Parco M. Siu, PhD

Figure. Forest Plot of the Distribution of Effect Sizes After Physical Activity Intervention

Study	Hedges g (95% CI)
Roshan et al, ⁴⁷ 2011	-1.39 (-2.29 to -0.48)
Talakoub et al, 50 2012	-1.14 (-1.67 to -0.60)
Mohammadi, ⁴⁰ 2011	-1.00 (-1.51 to -0.49)
Silva et al, ⁴⁹ 2020	-0.74 (-1.65 to 0.18)
Hughes et al, ³⁸ 2013	-0.69 (-1.49 to 0.11)
Wunram et al, ⁵³ 2018	-0.63 (-1.25 to -0.01)
Zhang and Ji,55 2021	-0.58 (-0.92 to -0.23)
Weintraub et al, ⁵¹ 2008	-0.40 (-1.27 to 0.48)
Nabkasorn et al, 41 2006	-0.34 (-0.91 to 0.23)
Peng et al, ⁴⁴ 2015	-0.28 (-0.64 to 0.08)
Petty et al, ⁴⁵ 2009	-0.23 (-0.50 to 0.05)
Roth et al, ⁴⁸ 1987	-0.20 (-0.86 to 0.46)
Goldfield et al, ³⁷ 2015	-0.17 (-0.50 to 0.15)
Williams et al, ⁵² 2019	-0.09 (-0.39 to 0.21)
Daley et al, 36 2006	-0.09 (-0.60 to 0.43)
Olive et al, ⁴³ 2019	-0.04 (-0.19 to 0.12)
Bonhauser et al, ³⁵ 2005	-0.02 (-0.30 to 0.26)
Norris et al, ⁴² 1992	0.05 (-0.56 to 0.66)
Romero-Pérez et al, 46 2020	0.07 (-0.31 to 0.46)
Lin et al, 39 2020	0.17 (-0.46 to 0.80)
Yu et al, ⁵⁴ 2020	0.18 (-0.13 to 0.48)
Total	-0.29 (-0.47 to -0.10)
Heterogeneity: χ ₂₀ =53.92 (P < .001); I ² = 63%
20	



JAMA Psychiatry | Original Investigation

Associations of Changes in Sleep and Emotional and Behavioral Problems From Late Childhood to Early Adolescence

Rebecca Cooper, MPO; Maria A. Di Biase, PhD; Bei Bei, PhD; Jon Quach, PhD; Vanessa Cropley, PhD

Externalizing Symptoms

JAMA Psychiatry. doi:10.1001/jamapsychiatry.2023.0379 Published online April 5, 2023.



What is a Clinician to Do?

- Get as Many Kids into Treatment As you Can
- Work with Primary Care Providers when you Cannot
- Distribute Information to Public
- Encourage things with Strong Evidence Base



References



- Arakelyan, M., Freyleue, S., Avula, D., McLaren, J. L., O'Malley, A. J., & Leyenaar, J. K. (2023). Pediatric mental health hospitalizations at Acute Care Hospitals in the US, 2009-2019. *JAMA*, 329(12), 1000. https://doi.org/10.1001/jama.2023.1992
- Cooper, R., Di Biase, M. A., Bei, B., Quach, J., & Cropley, V. (2023). Associations of changes in sleep and emotional and behavioral problems from late childhood to early adolescence. *JAMA Psychiatry*. https://doi.org/10.1001/jamapsychiatry.2023.0379
- Fox, A. S., & Kalin, N. H. (2014). A translational neuroscience approach to understanding the development of Social Anxiety Disorder and its pathophysiology.

 *American Journal of Psychiatry, 171(11), 1162–1173. https://doi.org/10.1176/appi.ajp.2014.14040449
- Frenkel, T. I., Fox, N. A., Pine, D. S., Walker, O. L., Degnan, K. A., & Chronis-Tuscano, A. (2015). Early childhood behavioral inhibition, adult psychopathology and the buffering effects of adolescent social networks: A twenty-year prospective study. *Journal of Child Psychology and Psychiatry*, 56(10), 1065–1073. https://doi.org/10.1111/jcpp.12390
- Moffitt, T. E., & Caspi, A. (2019). Psychiatry's opportunity to prevent the rising burden of age-related disease. *JAMA Psychiatry*, 76(5), 461. https://doi.org/10.1001/jamapsychiatry.2019.0037
- Pine, D. S., & Fox, N. A. (2015). Childhood antecedents and risk for adult mental disorders. *Annual Review of Psychology*, 66(1), 459–485. https://doi.org/10.1146/annurev-psych-010814-015038
- Racine, N., McArthur, B. A., Cooke, J. E., Eirich, R., Zhu, J., & Madigan, S. (2021). Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19. *JAMA Pediatrics*, 175(11), 1142. https://doi.org/10.1001/jamapediatrics.2021.2482
- Recchia, F., Bernal, J. D., Fong, D. Y., Wong, S. H., Chung, P.-K., Chan, D. K., Capio, C. M., Yu, C. C., Wong, S. W., Sit, C. H., Chen, Y.-J., Thompson, W. R., & Siu, P. M. (2023). Physical activity interventions to alleviate depressive symptoms in children and adolescents. *JAMA Pediatrics*, 177(2), 132. https://doi.org/10.1001/jamapediatrics.2022.5090
- Sharifi, V., Shahrivar, Z., Zarafshan, H., Ashezary, S. B., Arabgol, F., Khademi, M., Jafarinia, M., Hajebi, A., Abolhassani, F., Emami, S., Ashkezari, A. B., Stuart, E. A., Mojtabai, R., & Wissow, L. (2023). Effect of general practitioner training in a collaborative Child Mental Health Care Program on children's mental health outcomes in a low-resource setting. *JAMA Psychiatry*, 80(1), 22. https://doi.org/10.1001/jamapsychiatry.2022.3989