



LOMA LINDA UNIVERSITY  
HEALTH

# The Crisis in Adolescent Mental Health: How Lifestyle Psychiatry Can Help

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# Conflicts

- I have no conflicts of interest.

# Objectives

- To highlight recent data on the current crisis in child and adolescent mental health, particularly the health of adolescent girls.
- To introduce the new fields of Lifestyle Medicine and Lifestyle Psychiatry.
- To provide some take home guidelines with which pediatricians can complement the work of psychiatrists in preventing, treating, and reversing the mental disorders of their patients.

# The Sickest Generation (2011)

- **43%** of U.S. children and adolescents with one or more chronic illnesses, or **54.1%** when being overweight, being obese, or being at risk for developmental delays is included.\*
- Notably the “4-A” disorders: Autism or other developmental disabilities, ADHD, asthma, allergies.
- Developmental disabilities in **1 of every 6**, with **13 – 24%** of children and adolescents now in special education services.

\* Bethell CD, Kogan MD, Strickland BB, Schor EL, Robertson J, Newacheck PW. A national and state profile of leading health problems and health care quality for US children: Key insurance disparities and across-state variations. *Acad Pediatr* 2011;11(3 Suppl):S22-S33.

# The Sickest Generation (2010)

- National Comorbidity Study-A, 2010:
- **49.5%** of youth 13-18 diagnosed with one or more Mental, Emotional, and Behavioral (MEB) disorders.\*
- Including **31.9%** with anxiety disorders, **19.6%** with behavioral disorders, **14.3%** with mood disorders, **11.4%** with substance use disorders.
- **27.6%** of the above MEBs were classified as “severe.”

\* Merikangas, KR, et al. Lifetime Prevalence of Mental Disorders in US Adolescents: Results from the National Comorbidity Study-Adolescent Supplement (NCS-A)., 2010 October; 49(10):980. *J Am Acad Child Adolesc Psychiatry*, pp. 4-5.

# Current Crisis in Adolescent Mental Health (2022)

- CDC's *Youth Risk Behavior Survey Data Summary & Trends Reports 2011-2021*\* – first large tranche of data collected since the pandemic.
- Data gathered every 2 years.
- Current statistics and trends for the past 10 years.
- Documents startling uptick in mental health disorders among high school students over the past 10 years.

\* CDC, *Youth Risk Behavior Survey Data Summary & Trends Report 2011 – 2021*. CDC, Division of Adolescent and School Health, Feb., 2023. [www.cdc.gov/healthyyouth](http://www.cdc.gov/healthyyouth).

# Mental Health Data from the YRBS\*

Percent of High School Students	2011	2013	2015	2017	2019	2021
Experienced persistent feelings of sadness or hopelessness	28	30	30	31	37	<b>42</b>
Seriously considered attempting suicide	16	17	18	17	19	<b>22</b>
Made a suicide plan	13	14	15	14	16	<b>18</b>
Attempted suicide	8	8	9	7	9	<b>10</b>

\* *Ibid.* (YRBS), pp. 58 – 68.

# Mental Health Crisis Far Worse in Adolescent Girls, YRBS\*

Percent of High School Students in 2021	Total	Male	Female
Experienced feelings of sadness or hopelessness	42	29	<b>57</b>
Report poor mental health	29	18	<b>41</b>
Seriously considered attempting suicide	22	14	<b>30</b>
Made a suicide plan	18	12	<b>24</b>
Attempted suicide	10	7	<b>13</b>

**With nearly a quarter of adolescent girls suicidal with a plan (criterion for inpatient hospitalization) within the past one year, how can a crisis of this magnitude be addressed?**

*\* Ibid. (YRBS), pp. 58 – 68.*



# Three Solutions Proposed by CDC (YRBS\*)

- Increase school connectedness (for example, by making schools safer, more inclusive, with safe spaces, safe people, and anti-harassment policies).
  - Increase school-based mental health services offered.
  - Promote health education.
- How might Lifestyle Psychiatry fit into this scenario and into these proposed goals of connectedness, health education, etc.?*

\* *Ibid.* (YRBS), pp. 3-5.

# First, what is *Lifestyle Medicine*?

- “. . . the evidence-based practice of helping individuals and families to adopt and sustain healthy behaviors that affect health and quality of life . . . Alternatively, [it] is the use of therapeutic lifestyle changes to treat, prevent, and reverse disease.”\*
- Board certification available since 2017.
- The basis of the lifestyle recommendations used in all sub-specialties of medicine – e.g., Lifestyle Cardiology, etc.

\* *Lifestyle Medicine, Third Edition*. Ed. Rippe JM. New York, NY: CRC Press, Taylor & Francis Group, 2019.

# What is *Lifestyle Psychiatry*?

- No consensus definition yet.
- By analogy, possibly . . . “the evidence-based practice of helping individuals, families, and groups to adopt and sustain behaviors and habits that impact physical and mental health, in order to treat, prevent, and reverse mental disorders and to promote vibrant mental health.”
- First book, *Lifestyle Psychiatry*, published by APA in 2020, ed. Douglas Noordsy.\*
- Clinics offered in numerous universities including Stanford SOM and Loma Linda University SOM.
- Readily incorporated into Family Based Treatment strategies (such as the highly efficacious Maudsley method for the treatment of Eating Disorders).

\* *Lifestyle Psychiatry*. Ed. Noordsy DL. American Psychiatric Association, 2020.

# The Six Pillars (*evidence-based and highly effective*)

- Nutrition – the Whole Food Plant Based diet.
- Detoxification/Decontamination – the reduction of use of substances, reduction of toxic exposures, use of Motivational Interviewing to achieve these ends.
- Exercise – for children and adolescents, 300 minutes each week of movement, at least half of which should be moderate to vigorous.
- Sleep – techniques of sleep hygiene so that children and adolescents can get from 9 to 11 hours/night, depending upon age. Light exposure particularly important.
- Social and Emotional Connectedness, or Wellness – the formation of supportive relationships within the home, school, and larger community as foundational to mental health, use of Positive Psychology to achieve these goals.
- Stress Reduction – for example, decreasing stressful events and requirements; increasing resilience to stress with coping strategies like Mindfulness-Based Stress Reduction; decreasing the perception of stress with Cognitive Behavioral Therapy and other strategies; increasing the awareness of support.

After the goals are thoroughly understood,  
SMART\* Implementation with an Rx that is:

- Specific
- Measurable
- Achievable (i.e., “tiny steps”)
- Realistic for the patient
- Time-Bound
- Can be implemented within diverse medical and psychiatric settings (inpatient, PHP/IOP, outpatient), within the school, and within the family
- Because implementation with SMART prescriptions helps with patient adherence.

# Take Home Example - *Nutrition*

- What the recommendation is – The Whole Food Plant Based diet, which involves eating mainly plant foods – fruits, vegetables, whole grains, legumes, and raw nuts and seeds – in their unprocessed form, with only minimal ingestion of animal products. Supplemented with vitamin B12 and ideally, others.
- Why follow it – Eating it improves both physical and mental health. Eating fruits, in particular, is associated with higher happiness scores. Eating processed and nutritionally empty foods is associated with higher depression scores.
- Some of the evidence – Over 800 studies including the largest epidemiological trial ever done, the China Study,<sup>\*</sup> and by a small number of large randomized controlled trials (RCTs), such as the Geico Study.<sup>\*\*</sup> One very large RCT from the 1950s showing that Semi-Starvation causes depression.<sup>\*\*\*</sup> Summary of the role of micronutrients in mental health by Charles Popper.<sup>\*\*\*\*</sup> Overall review of the studies in Douglas Noordsy, ed.<sup>\*\*\*\*\*</sup>
- A SMART prescription – “Add one cup of fruit, such as red apples, oranges, or purple grapes, to lunch and dinner every day for the next four weeks or until I see you again.”

<sup>\*</sup>Campbell & Campbell, 2005; <sup>\*\*</sup>Agarwal, Mishra, Xu *et al.*, 2015; <sup>\*\*\*</sup>Keys, Brozek, Henschel *et al.*, 1950; <sup>\*\*\*\*</sup>Popper, 2014, pp. 632-635; <sup>\*\*\*\*\*</sup>Noordsy DL, 2019, pp. 201 – 206.

# Take Home Example - *Exercise*

- What the recommendation is – 300 minutes of exercise each week, about half of which should be moderate to vigorous.
- Why follow it – Very strong evidence that exercise rapidly improves mood.
- Some of the evidence – Outlined in Noordsy's *Lifestyle Psychiatry*.<sup>\*</sup> For example, moderate exercise three times weekly for 30 minutes each session improves mood as much as a moderate dose of the SSRI-type antidepressant Zoloft. As little as 1 hour of physical activity each week can be protective against depressive symptoms.<sup>\*\*</sup>
- A SMART prescription – Walk or jog-walk vigorously, so that it's a little difficult to speak, for 30 minutes five days each week, for four weeks or until I see you again.

<sup>\*</sup>Noordsy DL, 2019, Ch 3, pp 41-49. <sup>\*\*</sup>Harvey SB, Overland S, Hatch SL, et al. Exercise and the prevention of depression: Results of the HUNT study. *American J Psychiatry* 175(1): 28 – 36, 2018.

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Slide 4: Bethell CD, Kogan MD, Strickland BB, Schor EL, Robertson J, Newacheck PW. A national and state profile of leading health problems and health care quality for US children: Key insurance disparities and across-state variations. *Acad Pediatr* 2011;11(3 Suppl):S22-S33.

Slide 5: Merikangas, KR, et al. Lifetime Prevalence of Mental Disorders in US Adolescents: Results from the National Comorbidity Study-Adolescent Supplement (NCS-A), 2010 October; 49(10):980. *J Am Acad Child Adolesc Psychiatry*, pp. 4-5.

Slide 6: CDC, *Youth Risk Behavior Survey Data Summary & Trends Report 2011 – 2021*. CDC, Division of Adolescent and School Health, Feb., 2023. [www.Cdc.gov/healthyyouth](http://www.Cdc.gov/healthyyouth).

Slide 7: *Ibid.* (YRBS), pp. 58 – 68.

Slide 8: *Ibid.* (YRBS), pp. 58 – 68.

Slide 9: *Ibid.* (YRBS), pp. 3 – 5.

Slide 10: *Lifestyle Medicine, Third Edition*. Ed. Rippe JM. New York, NY: CRC Press, Taylor & Francis Group, 2019.

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# *Questions?*

- *Thank you!*
- Should you wish to contact me for more details about Lifestyle Psychiatry or about our programs at Loma Linda University SOM, please don't hesitate to reach out.
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