

RAPID EVIDENCE REVIEW: SUMMARY OF FINDINGS

Moving Policy Upstream to Advance Adolescent Flourishing

Question: Can teens’ psychological, social, and emotional wellbeing be enhanced?

Answer: A variety of interventions, strategies, and policies, at different levels of social and environmental influence, can make positive changes toward enhancing teens’ psychological, social, and emotional wellbeing (Table 1). If well implemented at a population level, and possibly combined to address multiple levels, strategies could help to get teens, their communities, schools, and families, on a path toward positive mental health and flourishing and away from a current path to increasing “languishing.” However, there is enough uncertainty in the data to warrant additional and more rigorous evaluation of any program or policy intervention. Future evaluations should carefully measure the impacts of universal programs and strategies on teens at varying risk of psychological distress, in preparation for potential future targeting.

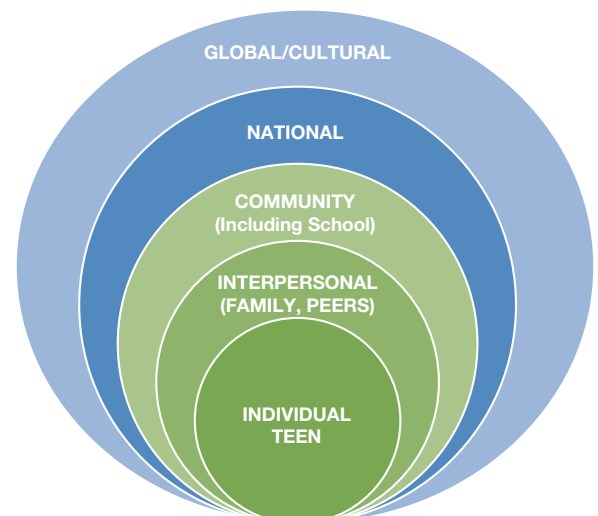
Context for this Review

America’s high-school-aged teens are not flourishing. Many policymakers around the globe are eager to learn if strategies and interventions can work to advance teens’ psychological, emotional, and social wellbeing. The new adolescent brain science, and growing knowledge about the environmental determinants of mental health (**Figure 1**), can help us better understand teens and their needs, and devise strategies to advance teen flourishing. This Rapid Evidence Review (RER) reports on findings from recent systematic reviews and selected major studies to address the question of whether teen flourishing can be enhanced. This RER does not aim to rate the relative effectiveness of interventions; the nature of the evidence does not allow for ranking or meta-analysis.

Findings

Out of over 3,500 possible titles, this RER included 34 systematic reviews and two large-scale studies of interventions, which focused on a broad variety of strategies. These include: at the national level, family housing assistance; at the community level: family income supplementation, efforts to improve community infrastructure, whole school interventions (e.g., later school start times, mindfulness for teachers); at the interpersonal level, parent training; and several multi-level interventions (schools, parents, and/or teens). Most strategies focused directly on building skills and changing attitudes with individual teens through activities such as exercise, sports, yoga, mindfulness, resilience-focused strategies, stress reduction, conflict resolution, stigma reduction, interactions with nature, self/emotional regulation, social and emotional skills, positive youth development programs, and youth community development. Most interventions occurred face to face, but some used digital platforms. Strategies aimed to affect multiple outcomes related to flourishing, both positively and negatively framed. While some interventions focused on disadvantaged populations, too few systematic reviews reported outcomes for vulnerable subgroups of teens for us to draw meaningful conclusions about which interventions work best for which teens.

Figure 1. Conceptual framework: multiple sources of potential influence and intervention on teens’ psychological, social, and emotional wellbeing.



Sources: Adapted from Bronfenbrenner, 1999¹⁸; Dahlgren and Whitehead, 1991¹⁹

Effects on teens. As shown in **Table 1**, almost all of the studied interventions found some positive effects on teen wellbeing measured as psychological distress, symptom reduction, social and emotional competence, self-esteem, prosocial behavior, emotional intelligence, and other indicators.

Effects on community wellbeing. A few studies of activities involving teens measured community wellbeing (e.g., neighborhood conditions, teacher wellbeing, and policy adoption). One notable finding is related to youth inquiry interventions, the review of which found beneficial findings for other community members.

What's missing. Systematic reviews and/or original studies are either not available or scarce for interventions dealing with contemporary threats to teens' psychological, social, and emotional wellbeing. These risks include systemic racism, other forms of discrimination (e.g., by gender, income), academic and economic stress, social media, changing drug availability, climate change, and the threat of mass shootings. How these threats affect teen wellbeing and whether existing strategies are effective in ameliorating the stress they cause remain open questions.

Conclusion

A conclusion that teen psychological distress is a natural part of adolescence that cannot be modified is not supported by the evidence. This RER suggests teen psychological, social, and emotional wellbeing levels can be improved through intervention. At a population level, these improvements can be meaningful. However, not every study finds improvement, the quality of the research is uneven, and many risks have not been addressed. Accordingly, it will be important for any implementation effort to be accompanied by rigorous evaluation.

Additional Considerations

Interpretation of these RER findings requires some caution, in part because of limitations of the RER and the included reviews. The RER limited its searches to universal, population-based, interventions and did not look for targeted interventions to advance flourishing for teens at higher risk of languishing.¹ Findings listed in the RER summary tables are not all from reviews and not all specific to teens. Terminology for interventions and outcomes is not consistent across reviews. The methodological quality of studies included in systematic reviews was rated low to moderate by reviewers.

Recommendations for Future Reviews and Research

- Design interventions based on findings of adolescent developmental science.²
- Focus original research and reviews on interventions for adolescents, and report findings by teen subgroup.
- Test effectiveness of interventions using larger samples, multiple sites, and more rigorous evaluation designs.
- Expand considerations of social and other environmental determinants of mental health beyond the usual suspects to influences most important to teens, and include impacts on positive mental health and psychological, social, and emotional wellbeing.

About this Rapid Evidence Review

This project supports Well Being Trust's overall agenda by focusing specifically on policy priorities to enhance adolescent psychological, social, and emotional health and wellbeing. This rapid evidence review is an interim report and serves as one foundation for a prioritized and actionable set of evidence-informed policy recommendations. The project is guided by a National Expert Panel including the following members: Johanna Bergan, Christina Bethell, Anne Collier, Angela Diaz, Nadine Gracia, Vicki Harrison, Corey Keyes, Matt Soeth, Shawn Sprecker, and Qi Wang.

Appendices

A listing of this report's appendices is provided below:

- Appendix 1: Key Definitions
- Appendix 2: RER Methods
- Appendix 3: Narrative Summary of Findings
- Appendix 4: Findings by Outcome
- Appendix 5: Evidence Tables by Article Reviewed
- Appendix 6: Excluded Reviews

Table 1. Summary of teen-level findings from the rapid evidence review, by strategy. Bolded entries indicate the findings are from methodologically more robust reviews.

SOCIO-ENVIRONMENTAL LEVEL AND STRATEGY (Review OR Study ³)		OUTCOMES WITH POSITIVE IMPACT (STRATEGY SUBTYPE)	OUTCOMES WITH NO EFFECT, INCONCLUSIVE, OR NEGATIVE EFFECT (STRATEGY SUBTYPE)
National/community-level interventions			
1	Housing assistance (Nguyen, 2016)	Psychological distress (girls only)	Psychological distress (Chicago participants: null findings; boys in other locations: detrimental effects)
Community-level interventions			
2	Income supplementation (Costello, 2003)	Oppositional defiant disorder and conduct disorder symptoms	Depression and anxiety symptoms
School-level interventions			
3	Later school start times (Berger, 2018; Marx, 2017)	Depressive symptoms; sleep duration; other mental health (prosocial, emotional symptoms, peer relationships, total difficulties); composite mental health	Mental health (inconclusive due to study design flaws); conduct problems; feeling accepted by other students; feeling accepted by adults
4	Whole school approach focused on mental health promotion (Enns, 2016)	Social and emotional competence ^{4 5}	
Interpersonal-level interventions			
5	Parenting interventions to prevent teen internalizing symptoms (Yap, 2018)	Depressive symptoms or diagnosis	Internalizing symptoms
Multi-level interventions			
6	“MindMatters” (multi-tier involving school personnel and students) (O’Reilly, 2018)	Emotional and/or social competence	
7	“Up” (school-based mental health promotion) (O’Reilly, 2018)	Emotional and/or social competence	
8	Violence reduction and gender equality-focused intervention with training for school counselors and parent involvement (Catalano, 2019)	Attitudes toward domestic violence (declined)	
Individual teen-level interventions			
Broad groupings of strategies			
9	Universal resilience-focused interventions (various types) (Dray, 2017)	Internalizing symptoms (cognitive behavioral therapy-based)	Anxiety/anxiety and stress; depressive symptoms; externalizing problems/behaviors; psychological distress
10	Universal school-based mental health promotion (O’Connor, 2018)	Anger/anger control (life-skills training); stigma (anti-stigma program); stress (stress management program); suicidal ideation (Suicide prevention and depression awareness program)	
11	Universal ‘Tier 1’ school-based mental health interventions in the context of multi-tiered systems of support (MTSS) (Arora, 2019)	Depressive symptoms	Depressive symptoms
Specific programs or program components			
12	Alcohol and drug education (Skeen, 2019)	Positive mental health promotion (face to face interventions only)	
13	Anxiety reduction interventions (Feiss, 2019)	Anxiety/stress	

SOCIO-ENVIRONMENTAL LEVEL AND STRATEGY (Review OR Study ³)		OUTCOMES WITH POSITIVE IMPACT (STRATEGY SUBTYPE)	OUTCOMES WITH NO EFFECT, INCONCLUSIVE, OR NEGATIVE EFFECT (STRATEGY SUBTYPE)
Individual teen-level interventions, continued			
14	BiteBack and BiteBack School (online positive mental health) (Banos, 2017)	Total symptom score	Life satisfaction
15	Body image interventions (Soulakova, 2019)		Body image
16	Cognitive behavioral therapy-based (Soulakova, 2019)		Anxiety/stress
17	Community sports participation (Barry, 2018)	Community engagement ⁶	
18	Conflict resolution components of universal adolescent mental health preventive interventions (Skeen, 2019)	Anxiety and depression symptoms (face to face components only)	
19	E-health4U (Banos, 2017)	Mental health	
20	Emotional regulation components of universal mental health prevention strategies (Skeen, 2019)	Anxiety and depression symptoms; positive mental health promotion	
21	Exercise ⁷ (includes Tai Chi, which could also be considered meditation) (Mansfield, 2018; Pandey, 2018; Rodriguez-Ayllon, 2019)	Anxiety/stress (to 50-80% of heart rate; tai chi [versus gymnastics]); depressive symptoms; imbalance (emotional, psychological); psychological distress (aerobics and hip-hop groups had lower psychological distress than body conditioning and ice-skating groups); feelings (aerobics only); positive wellbeing (volleyball: effects varied based on extent to which the sport met students' psychological needs; aerobics and hip-hop rated positive wellbeing higher than body conditioning and ice-skating groups); self-esteem (aerobic exercise: girls only; greater improvements for resistance training than for aerobics); process self-regulation (personal and social responsibility model exercise interventions)	Stress (tai chi [cen-style]); body image; happiness (tai chi [versus gymnastics]); mental health/mental health status (CrossFit); psychological wellbeing (high-intensity interval training); self-esteem (active video game program)
22	Goal-setting components of universal adolescent mental health prevention interventions (Skeen, 2019)	Anxiety and depression symptoms (face to face only)	
23	Interpersonal skills components of universal mental health preventive programs (Skeen, 2019)	Anxiety and depression symptoms; positive mental health promotion	
24	Life skills education (Nasheeda, 2019)	Emotional adjustment; empathy; self-esteem	Social adjustment
25	Life skills for mental health (Catalano, 2019)	Self-esteem	
26	Mental health awareness (Salerno, 2016)	Stigma (1 out of 3 studies found improvements in attitudes)	Stigma (2 out of 3 studies found no improvement in attitudes); help-seeking (grades 5-12 combined); mental health literacy (knowledge)
27	Mentoring ⁸ (also see row 38 for positive youth development interventions) (Barry, 2018; Raposa, 2019)	Emotional difficulties and behaviors; multiple outcomes (school engagement, social skills, perceived social support, relationship quality) ⁹	
28	Mindfulness based interventions (Dunning, 2019; Skeen, 2019)	Anxiety/stress ¹⁰ ; depressive symptoms ¹² ; anxiety and depressive symptoms (face to face only); stress; mindfulness ¹² ; resilience	Negative behavior ¹² ; attention ¹² ; executive functions ¹² ; social behavior ¹²
29	Mobile app self-report on mood, stress, daily activities, and coping strategies (Punukullo, 2019)		Depressive symptoms ¹¹

SOCIO-ENVIRONMENTAL LEVEL AND STRATEGY (Review OR Study ³)		OUTCOMES WITH POSITIVE IMPACT (STRATEGY SUBTYPE)	OUTCOMES WITH NO EFFECT, INCONCLUSIVE, OR NEGATIVE EFFECT (STRATEGY SUBTYPE)
Individual teen-level interventions, continued			
30	Mobile phone-based multimedia messages (cognitive behavioral therapy-based texts) (Punukullo, 2019)		Depressive symptoms
31	Nature interactions (Tillman, 2018)	Stress ¹² ; emotional wellbeing ¹⁴ ; mental health/mental health status; resilience ¹³	Emotional wellbeing ¹⁴ ; mental health/mental health status; resilience ¹⁴ ; self-esteem ¹⁵
32	Penn Resiliency Program - Finnish derivative (Bastounis, 2016)	Anxiety and depressive symptoms	Depressive symptoms; explanatory style; anxiety (control group did better)
33	Preparation for adulthood strategies (Burrus, 2018)	Healthy relationships; parent-child communication; adolescent development	
34	Problem-solving components of universal adolescent mental health prevention interventions (Skeen, 2019)	Anxiety and depression symptoms (digital and combined only)	
35	Programs to develop young men's wellbeing (Gwyther, 2019)	Depressive symptoms; negative affect; cognitive autonomy; emotional intelligence (multiple studies); help-seeking; interest in diversity of contact; mental health/mental health status; optimism; psychological wellbeing (gender sensitive programs); quality of life (enjoyment and satisfaction); reshaped perceptions about being a man; self-efficacy (male only programs and mixed gender programs); self-esteem; self-reflection	
36	Self-regulation/Emotional regulation techniques (Pandey, 2018; Van Genugtsen, 2016)	Connectedness Student (success skills program); self-esteem	Externalizing problems/behaviors; internalizing symptoms
37	Skills to resist peer pressure as a component of universal adolescent mental health prevention programs (Skeen, 2019)	Positive mental health (aggregate)	
38	Social and emotional skills development (multiple intervention types) (Barry, 2018; Taylor, 2017)	Communication and facilitation skills (through mentoring); life satisfaction/life is worthwhile (multi-component social action interventions were the delivery mechanism for social-emotional skills); coping skills; positive youth development outcomes ¹⁶ ; relationship skills	Negative affect (through mentoring); motivation to change; positive outlook
39	Stress reduction interventions (Feiss, 2019)		Stress: targeted interventions found to be better than universal
40	Suicide prevention (O'Connor, 2018)	Suicide knowledge; suicidal ideation; suicide prevention; help-seeking behavior and ability to identify support	Attitudes and behaviors
41	The Council for Boys and Young Men (UK) ¹⁷ (Gwyther, 2019)	Self-efficacy (school and future)	Identity distress; masculine ideology
42	Video interventions (Janouskova, 2017)	Stigma; help-seeking	Stigma; help-seeking
43	Yoga (Pandey, 2018)	Tension-anxiety; total mood disturbance; body image	Self-regulation (mindful yoga)
44	Youth-led community development program (Pennington, 2018)		Self-esteem

Endnotes

1. See Appendix 2.
2. Yeager DS, Dahl RE, Dweck CS. Why interventions to influence adolescent behavior often fail but could succeed. *Perspectives on Psychological Science*, 2017; 13(1):101-122.
3. Full citations can be found in Appendix 5, Evidence Tables.
4. Positive outcomes compared to whole-school approach focused on preventing mental illness.
5. Ages 6-18 combined.
6. Characterized as social and emotional by Barry, 2018.
7. Note that different forms of exercise have different effects, according to reviews.
8. Mentoring programs varied. For example, the program with positive effect on emotional difficulties and behaviors was residential plus 9 months of mentoring, categorized as social and emotional skills development.
9. Note that mentoring with these outcomes was intergenerational and one-on-one.
10. Most study participants were older than 12, but the ages ranged from 4.7 to 17.4.
11. Reviewers attributed improvement in symptoms to participation in the research study rather than increased emotional self-awareness as a result of the mobile app.
12. Findings not available by age. Children and adolescent (18 and younger) interventions and outcomes combined.
13. 3 out of 5 interventions showed positive effects. Children and teens combined.
14. 2 out of 5 interventions showed positive effects. Children and teens combined.
15. 10 of 13 findings were not statistically significant.
16. Combined effect size reported. Outcomes not specific to adolescents, but demographics, including child age group, were not associated with the combined effect size.
17. The Council intervention aimed to encourage solidarity amongst young men, question maladaptive stereotypes, and recognize strengths and collective responsibilities.
18. Bronfenbrenner, U. 1999. Environments in developmental perspective: Theoretical and operational models. In S. L. Friedman & T. D. Wachs (Eds.), *Measuring environment across the life span: Emerging methods and concepts* (pp. 3-28). Washington, DC, US: American Psychological Association.
19. Dahlgren G, Whitehead M. 1991. *Policies and Strategies to Promote Social Equity in Health*. Stockholm, Sweden: Institute for Futures Studies.

