

EXTRACURRICULARS & ADOLESCENT MENTAL WELL-BEING

RESEARCH-BASED INSIGHTS

KEY RESEARCH FINDINGS



Participation in club and sports activities is linked with:



Reduces depressive symptoms, loneliness, & anxiety



Better social-emotional skills
Leadership & resilience



Buffers against negative impacts of bullying and family stress

KEY TAKEAWAYS

- Broad benefits across types of activities
- Sports participation is particularly protective
- Consistency and balance are important

IMPLICATIONS



Encourage moderate, meaningful participation



Provide diverse extracurricular offerings



Maintain balance: limit screen time, avoid overcommitment

High School Extracurriculars and Mental Health

Title: The Impact of High School Extracurricular Involvement on Adolescent Mental Well-Being

Abstract: High school students' participation in extracurricular activities, including clubs, arts, and sports, is linked to improved mental well-being and psychosocial development. This paper synthesizes current peer-reviewed research on the relationship between extracurricular involvement and mental health outcomes among adolescents, highlighting benefits, mechanisms, and moderating factors.

Introduction: Participation in extracurricular activities is widely encouraged in secondary education, with the expectation that it fosters social, emotional, and psychological growth. Research indicates that involvement in sports, clubs, and arts can improve self-esteem, emotional regulation, and resilience while reducing depressive symptoms, anxiety, and risk behaviors. This paper reviews ten key studies examining these relationships, offering evidence-based recommendations for schools and parents.

Key Findings:

1. Extracurricular Arts and Sports Participation:
 - Participation in arts and sports activities is significantly associated with enhanced social-emotional skills, including leadership, resilience, and emotional regulation (MDPI, 2024).
2. Type and Breadth of Participation:
 - Sports participation correlates with lower loneliness, social anxiety, and depressive symptoms, while special-interest club involvement also reduces depressive symptoms (Panza et al., 2020).
 - Moderate participation (1-2 activity domains) often yields optimal mental health outcomes (Panza et al., 2020).
3. Sports and Mental Health:

- Both team and individual sports are associated with lower depression and higher life satisfaction (Chi et al., 2022).
- Longitudinal evidence shows that high school sports participation predicts better mental health outcomes into early adulthood (LaForge-MacKenzie et al., 2022).
- 4. Protective Effects and Risk Buffering:
 - Extracurricular participation can buffer against negative outcomes from bullying and family/school adversity (BMC Public Health, 2025).
 - Self-esteem mediates the relationship between sports participation and reduced self-harm behaviors (Psychology of Sport and Exercise, 2022).
- 5. Population-Level Studies:
 - Large-scale studies indicate that extracurricular involvement is associated with higher life satisfaction, optimism, and lower anxiety/depression, especially when screen time is limited (Preventive Medicine, 2020).

Discussion: The evidence consistently supports the mental health benefits of extracurricular involvement, particularly sports, but also extending to arts and clubs. Mechanisms include enhanced self-esteem, social-emotional skill development, and provision of social support. Participation offers protective effects for at-risk youth and may have long-term benefits into early adulthood. However, benefits are modest, and excessive or diffuse involvement may not yield stronger outcomes.

Implications for Practice:

- Encourage moderate, meaningful participation in a variety of extracurricular activities.
- Provide access to both sport and non-sport activities to engage a diverse student population.
- Monitor balance to prevent overcommitment and ensure supportive, inclusive environments.

Conclusion: Extracurricular involvement is a significant contributor to adolescent mental well-being. Schools and parents can support student participation as a

strategy to enhance social-emotional development, reduce mental health risks, and promote long-term psychosocial growth.

References:

1. Panza, M. J., Graupensperger, S., Agans, J. P., Doré, I., Vella, S. A., & Evans, M. B. (2020). Adolescent Sport Participation and Symptoms of Anxiety and Depression: A Systematic Review and Meta-Analysis. *Journal of Sport and Exercise Psychology*, 42(3), 201–218. DOI: 10.1123/JSEP.2019-0235
2. Bengtsson, D., et al. (2025). Health-related outcomes of youth sport participation: a systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 22, 89. DOI: 10.1186/s12966-025-01792-x
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<https://www.frontiersin.org/articles/10.3389/fpubh.2022.860994/full>
4. LaForge-MacKenzie, K., et al. (2022). Participating in extracurricular activities and school sports: Associations with child and youth mental health. *PMC*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9464933/>
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<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-025-23239-5>
10. Panza, M. J., et al. (2020). Type and Breadth of High School Extracurricular Activity Involvement and Postsecondary Psychosocial Well-Being among Diverse Youth. *PubMed*. <https://pubmed.ncbi.nlm.nih.gov/36335238/>

Here's a summary of 8 peer-reviewed or research-based studies (and one umbrella review) examining the relationship between high school / adolescent involvement in clubs, extracurricular activities, athletics, and mental well-being. I focused on studies of adolescents (or following adolescents into early adulthood), and on psychological/mental health or psychosocial outcomes.

Key Research Findings

The Relationship between Participation in Extracurricular Arts and Sports Activities and Adolescents' Social and Emotional Skills

- This study found that participation in extracurricular arts *and* sports activities is significantly positively related to adolescents' social and emotional skills.
- Specifically, participating in those activities was linked to better emotional regulation, social-emotional development, resilience, leadership, and other soft skills that matter for well-being in adolescence.

Type and Breadth of High School Extracurricular Activity Involvement and Postsecondary Psychosocial Well-Being among Diverse Youth

- This longitudinal study ($N \approx 4,070$) examined how the *type* (sports vs clubs) and *breadth* (how many activities) of high school extracurricular involvement predicted psychosocial well-being one year after high school.
- Results: Participation in sports during 11th grade was associated with lower loneliness, social anxiety, and depressive symptoms, and higher self-worth. Participation in special-interest clubs was also associated with lower social anxiety and depressive symptoms.
- Interestingly, involvement in *one to two* activity domains (rather than many) was linked with the best outcomes — suggesting moderate, focused participation may be optimal.

Examining the Association between Sports Participation and Mental Health of Adolescents

- In a sample of 320 adolescents (average age ~14), this study found that both team and non-team sports participation were associated with lower depressive symptoms (for boys; for girls, team sports were associated with lower depression) and higher life satisfaction for both genders.
- This suggests that even non-team sports (e.g. individual sports) can have positive associations with adolescent mental health.

School sport participation during adolescence and mental health in early adulthood

- This longitudinal study followed adolescents (n = 853) over their 5 years of secondary school and then assessed mental health in early adulthood.
- Findings: Adolescents who participated in school sport had lower depression symptoms, lower perceived stress, and better self-rated mental health in early adulthood compared to those who did not.
- This suggests that high school sports participation may have long-term protective effects on mental health – beyond secondary school.

Impact of organized activities on mental health in children and adolescents:

An umbrella review

- This is an umbrella (review-of-reviews) that looked across 833 studies; of those, six met criteria for high quality and relevance.
- Overall, the review found small but consistent positive effects of participation in organized activities (sports, school clubs, extracurriculars) on mental health outcomes (e.g. lower depression/anxiety, better psychological well-being).
- The authors note that benefits seem to hold across different kinds of organized activities; but evidence for non-sport (e.g. non-athletic clubs) is more limited.

Can participation in organized sports help adolescents refrain from self-harm? An analysis of underlying mechanisms

- This longitudinal study of nearly 1,000 adolescents (grades 7–8) in Sweden tested whether participation in organized sport activities reduces self-harm.
- They found that self-esteem, but *not* depressive symptoms, mediated the link between sport participation and lower self-harm behavior. That is, sports → higher self-esteem → lower self-harm.
- This suggests a possible mechanism (self-esteem) by which involvement in organized sports could protect mental health and reduce risk behaviors.

Extracurricular activity participation moderates impact of family and school factors on adolescents' disruptive behavioural problems

- This study looked at whether extracurricular participation (sports, expressive activities, religious activities) moderates the negative impact of family/school risk factors (e.g. bullying, family issues) on adolescents' internalizing and externalizing problems.
- Results indicated that for adolescents who experienced bullying, participation in sports reduced the risk of psychological/psychiatric distress; expressive (non-sport) involvement reduced delinquency and school absenteeism when only one type of bullying occurred.
- This suggests extracurriculars (both sport and non-sport) can buffer against negative mental health / behavior outcomes for at-risk youth.

Screen time and extracurricular activities as risk and protective factors for mental health in adolescence: A population-level study

- This large population-level study (n = 28,712, age around 12) investigated the relationship between after-school screen time, participation in extracurricular activities, and mental health (life satisfaction, optimism, anxiety, depression).
- Key finding: adolescents who participated in extracurricular activities (sports, arts, community programs) reported higher life satisfaction and optimism, and

lower anxiety and depressive symptoms – especially when they spent less than 2 hours/day on recreational screen time.

- The protective association between extracurricular participation and mental health was especially strong for girls, though beneficial for all.

What Patterns Emerge / What We Learn

- Broad benefits across types of activities: Not only sports – but arts, clubs, and other extracurricular activities – are associated with better social-emotional skills, self-esteem, reduced mental health problems, and overall well-being. (See The Relationship between Participation ...; Extracurricular moderating bullying ...)
- Sports participation is particularly protective: Many studies show associations between sports (team or individual) and lower depressive symptoms, anxiety, stress, self-harm risk, and higher life satisfaction or self-worth. (e.g. Examining the Association ...; School sport ... early adulthood; Self-harm mediation study)
- Long-term benefits: Involvement in high school sports is not only linked to better mental health during adolescence – effects can extend into early adulthood (e.g. lower depression, better self-rated mental health) according to longitudinal evidence.
- Buffering / protective role: Participation in extracurriculars can buffer against negative effects of risk factors (bullying, family/school adversity).
- Moderation by amount and context matters: The breadth of activity participation (how many different types) and factors such as school-based PE, or recreational screen time, can influence the strength of the benefit. (Too many activities may not be better; moderate involvement – e.g. one or two domains – may be optimal.)
- Possible mechanisms: self-esteem, emotion regulation, social / emotional skills: Some studies point to increased self-esteem, better emotional regulation, and improved social-emotional skills as mediators of the positive effect of extracurriculars on well-being and reduction of self-harm.

Limitations & Nuances

- The overall effect sizes are often small to moderate (as noted by the umbrella review).
- Evidence for non-sport extracurricular activities (clubs, arts, other non-athletic) is less consistent than for sports; fewer high-quality, long-term studies exist.

- Self-selection bias: Youth predisposed to better mental health or social support may be more likely to join clubs/sports. Some studies mention this caveat.
 - Overinvolvement may not always equate to better well-being: the “breadth” of involvement matters; too many activities (or too diffuse involvement) may not yield stronger benefits.
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Implications (for Schools / Parents / Youth)

- Encouraging moderate, meaningful participation in extracurricular activities (sports, clubs, arts) can be a valuable part of promoting mental health and psychosocial well-being among high school students.
 - Schools should consider facilitating diverse extracurricular offerings – not only sports but also arts, clubs, special interest groups – to reach a broader range of students.
 - Maintaining balance is key: limiting screen time, providing supportive environments (inclusion, good coaching, social support), and avoiding over-commitment helps maximize benefits.
 - For long-term mental health, consistent participation over high school years may yield lasting benefits into adulthood.
 - For at-risk youth (e.g. those experiencing bullying, social isolation, or mental distress), extracurricular involvement may act as a protective buffer, reducing negative outcomes.
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Here is a bibliography list of 10 peer-reviewed or research-based studies/reviews (and 1 recent major systematic meta-analysis) on high school / adolescent involvement in clubs, extracurriculars, athletics and mental health / well-being. I include full citation details (authors, year, journal, DOI / notes) where available.

Bibliography of Key Studies

#	Citation (Authors, Year, Title, Source)
1	Panza, M. J., Graupensperger, S., Agans, J. P., Doré, I., Vella, S. A., & Evans, M. B. (2020). <i>Adolescent Sport Participation and Symptoms of Anxiety and Depression: A Systematic Review and Meta-Analysis</i> . <i>Journal of Sport and Exercise Psychology</i> , 42(3), 201–218. DOI: 10.1123/JSEP.2019-0235
2	Bengtsson, D., et al. (2025). <i>Health-related outcomes of youth sport participation: a systematic review and meta-analysis</i> . <i>International Journal of Behavioral Nutrition and Physical Activity</i> , 22, 89. DOI: 10.1186/s12966-025-01792-x
3	Chi, G. et al. (2022). <i>The Association of Sports Participation With Depressive Symptoms and Anxiety Disorder in Adolescents</i> . <i>Frontiers in Public Health</i> , 2022. (Cross-sectional study)
4	LaForge-MacKenzie, K., et al. (2022). <i>Participating in extracurricular activities and school sports: Associations with child and youth mental health</i> . (Study of changes in extracurricular and sport participation)
5	Waler, A., & Taliaferro, L. (2020). <i>102 Extracurricular Activity Involvement and Depression Among High School Students</i> . <i>CNS Spectrums</i> , 25(2). (Based on 2016 Minnesota Student Survey, N ≈ 81,885)
6	MDPI study – (Authors unspecified in summary) (2024). <i>The Relationship between Participation in Extracurricular Arts and Sports Activities and Adolescents' Social and Emotional Skills</i> . <i>Behavioral Sciences</i> , 14(7):541. DOI/URL as per MDPI site.
7	(Swedish longitudinal study) <i>Can participation in organized sports help adolescents refrain from self-harm? An analysis of underlying mechanisms</i> .

	Psychology of Sport and Exercise, Volume 59, March 2022, Article 102133. DOI: as per journal.
8	Youth sports meta-analysis (2025). <i>Health-related outcomes of youth sport participation: psychological, social, physical well-being and mental ill-being over time</i> . International Journal of Behavioral Nutrition and Physical Activity.
9	(Population-level Canadian study) (2020). <i>Screen time and extracurricular activities as risk and protective factors for mental health in adolescence</i> . Preventive Medicine. (Based on Middle Years Development Instrument, N = 28,712 grade 7 students)
10	(BMC Public Health, 2025) <i>Association of football athlete engagement profiles with adolescent mental health – a latent profile analysis</i> . BMC Public Health. (Study shows team-sport/football engagement linked to differences in depression & self-esteem across subgroups)

Additional Notes & Context

- The meta-analysis by Panza et al. (2020) (#1) found that across 29 studies and over 122,000 adolescents, organized sport participation was associated with significantly lower self-reported anxiety and depression symptoms – though effect size was small.
- The more recent 2025 meta-analysis (#2) extends the evidence: youth sport participation shows positive long-term effects on psychological and social health, self-esteem, well-being – across childhood, adolescence, into adulthood.
- Among individual empirical studies: Chi et al. (2022) (#3) reported that adolescents who participated in sports had lower odds of depressive symptoms and anxiety disorders compared to those with less or no sports participation.
- The large-scale population study in Canada (#9) linking extracurricular (sports, arts, community) participation with lower depression/anxiety and higher life-satisfaction & optimism – especially when paired with lower recreational

screen time — shows the interplay between extracurricular involvement and lifestyle/behavioral factors.

- The study of non-sport extracurricular activities (#6) suggests involvement in arts and clubs (not just sports) can foster social-emotional skills (resilience, leadership, emotional regulation), though authors note the evidence is more mixed than for sports.
 - The self-harm mediation study (#7) offers insight into possible mechanisms: participation in organized sports was associated with lower self-harm, and this association was mediated by self-esteem (but not depressive symptoms) — suggesting sports may confer mental-health benefits via enhanced self-concept/self-worth.
 - The BMC Public Health latent-profile analysis of football-athlete engagement (#10) indicates that not all sport participation is the same: different patterns of engagement relate to varying outcomes on depression and self-esteem — pointing to nuance depending on level/quality of engagement.
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What This Bibliography Provides & What It Doesn't

Provides: A mix of systematic reviews/meta-analyses (strong evidence syntheses) and individual empirical studies (cross-sectional, longitudinal).

- Evidence not just for sports, but also for non-sport extracurriculars (arts, clubs, community activities).
- Longitudinal and cross-sectional findings, including some into early adulthood (#2), underscoring potential long-term benefits.
- Insights into mechanisms (e.g., self-esteem mediation), moderating factors (screen time, type of activity), and developmental outcomes (social-emotional skills, well-being).

Limitations / What's Less Clear: Effect sizes in meta-analyses are often small, meaning benefits are modest on average.

- Evidence for non-sport extracurriculars (arts, clubs) is less robust / consistent than for sports.
- Causality is hard to establish: many studies are observational or cross-sectional; self-selection (healthier kids more likely to join) is a confound.
- Variation based on type of sport, intensity/frequency, gender, socioeconomic context, etc. — outcomes are not uniform across all adolescents.