

About the Relationship of Physical Activity to Mental Health and the Role of Schools

Findings suggest that participation in physical activity not only reduces depression and anxiety levels, but also significantly increases individuals' psychological resilience and mental well-being. Çakir, Isik, & Kavalci

According to the Centers for Disease Control and Prevention (CDC):
It is important to offer young people options and encouragement to participate in physical activities. The activities should be varied, age appropriate, and enjoyable. Children and adolescents aged 6–17 years should do 60 minutes (1 hour) or more of moderate-to-vigorous physical activity daily.

The recommended distribution is as follows:

- **Aerobic:** Most of the 60 minutes or more per day should be either moderate- or vigorous-intensity aerobic physical activity. There should include vigorous-intensity physical activity on at least 3 days a week.
- **Muscle-strengthening:** Children and adolescents should do muscle-strengthening physical activity at least 3 days a week.
- **Bone-strengthening:** Children and adolescents should include bone-strengthening physical activity at least 3 days a week.

In addition to physical health benefits, a robust body of research indicates that physical activity is positively related to mental health, and exercise therapy is recommended to combat mental health challenges and preserve mental wellness (e.g., see review by Mahindru, Patil, & Agrawa, 2023).

What's the Data on Physical Activity?

While schools provide formal and informal opportunities for such activity before, during, and after school, recent data indicate that only 20% to 28% of 6- to 17-year-olds get the recommended 60 minutes of daily physical activity. During July 2021–December 2023, physical activity decreased with increasing hours of screen time use, from 70.4% among those with =2 hours of screen time to 54.4% among those with =4 hours of screen time (National Center for Health Statistics, 2023)

The National Center for Health Statistics also indicated that in 2020, about 58% of children ages 6 to 17 participated in sports in the Midwest and Northeast, 56% in the West, and just under 49% in the South. Involvement in sports has long been viewed as associated with desirable outcomes in other areas of youngsters' lives, such as physical health and social, emotional, and academic well-being (e.g., see Veliz, Snyder, & Sabo, 2019). However, there is increasing concern that many youngsters are quitting organized sports because of an overemphasis on winning, too much overspecialization at a young age, lack of inclusivity, parental pressure, and the lure of screen time (<https://www.i9sports.com/blog/why-are-kids-quitting-sports>).

*The material in this document builds on work done by Otto Dreier as a participant with the national Center for MH in Schools & Student/Learning Supports at UCLA in 2025.

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Data on Physical Activity and Mental Health

As White and colleagues (2024) indicate: *While evidence consistently demonstrates that physical activity is beneficial to mental health, it remains relatively unknown how physical activity benefits mental health, and which factors influence the effect of physical activity on mental health.*

Conversely, inadequate physical activity is associated with social-emotional problems. For example, between 2016 and 2020, there was an 18% decrease in children getting the adequate amount of daily physical activity. During this period, findings indicate there was a 29% increase in anxiety issues and a 27% increase in depression (Lebrun-Harris, et. al, 2022).

Little is known about how specific types and levels of activity contribute to mental health, particularly among young people.

“Findings suggest that participation in physical activity not only reduces depression and anxiety levels, but also significantly increases individuals’ psychological resilience and mental well-being. In particular, walking was found to have one of the strongest effects on students’ mental resilience and well-being, and this effect was further enhanced when combined with moderate physical activities. While the study reveals that female students participate in less physical activity and have higher levels of psychological vulnerability compared to male students, it draws attention to the significant effects of this situation on mental health. However, it has been revealed that participation in physical activity, even at a low level, contributes to students’ optimistic view of the future, improving their ability to cope with stress and reducing their psychological vulnerability.”

Çakir, Isik, & Kavalci (2025)

What CDC Recommends that Schools Do

CDC’s framework for addressing health in schools emphasizes that physical education and physical activity be integrated across a Whole School, Whole Community, Whole Child (WSCC) approach. Their [online framework](#) is as follows:

“Schools that provide physical education daily can give students the ability and confidence to be physically active for a lifetime. Here are some evidence-based strategies and promising practices for using the Whole School, Whole Community, Whole Child (WSCC) approach to promote physical education and physical activity across the school setting.

Physical education and physical activity

- Implement policies and practices that support [a Comprehensive School Physical Activity Program](#), including physical education, recess, classroom physical activity, intramurals, physical activity clubs, walk- and bicycle-to-school initiatives, and interscholastic sports.
- Implement policies and practices that support physical education, such as:
 - Requiring daily physical education.
 - Having a written curriculum
 - Providing opportunities for certification licensure for PE teachers.
 - Making sure students get moderate-to-vigorous physical activity at least 50% of class time.
 - Prohibiting the withholding of physical education or use of physical activity as a punishment.

Health education

- Include physical activity as part of comprehensive health education.
- Ensure that health education curricula align with the national and state standards for physical education and address the physical activity behavior outcomes in CDC’s [Health Education Curriculum Analysis Tool](#).
- Reinforce the information taught in physical education classes and provide opportunities for students to apply it.

Community involvement

- Establish partnerships between schools and local government to create joint-use agreements to allow public access to school facilities, fitness centers, gymnasiums, or running tracks.
- Link to out-of-school programs that promote physical activity.
- Involve community organizations in school initiatives on physical education & physical activity.
- Leverage community resources to purchase equipment and safety gear, create safer environments for play such as safe playgrounds, and provide physically active transportation to school, such as traffic interventions.

Family engagement

- Provide materials about physical education and physical activity in languages that students and parents speak at home.
- Involve families on the school health council and engage them in promoting policies and practices for physical education and physical activity.
- Survey the interests of families to help offer needed physical activity initiatives.
- Encourage family members to volunteer in physical education classes or other physical activity programs.

Employee wellness

- Encourage school staff to model physical activity behaviors.
- Provide staff with access to physical activity opportunities through staff wellness programs.
- Provide physical activity breaks during staff meetings.
- Develop, implement, and evaluate physical activity programs for all school employees.

Physical environment

- Assess, inspect, and maintain all spaces and facilities for physical activity, including playing fields, playgrounds, gyms, swimming pools, multipurpose rooms, and fitness centers.
- Ensure safe routes to school.
- Provide safe and age-appropriate playgrounds and equipment for physical education, physical activity, and recess during the school day.
- Post safety rules and teach them to students.
- Provide students with protective clothing and equipment appropriate for the type of physical activity and the environment.

Social and emotional climate

- Establish social norms that increase physical activity behaviors of students and staff members, such as morning physical activity for all over intercom system.
- Establish policies and practices that allow full participation by all students in physical activity and physical education.
- Do not use physical activity as punishment or withhold opportunities for physical activity as a form of punishment.

Counseling, psychological, and social services

- Assess student needs related to physical activity and provide counseling and other services to meet those needs.
- Help students overcome barriers to physical activity and help them find social support, cope with teasing, set goals, and make healthy decisions.

Health services

- Refer students with physical activity concerns to health services staff members.
- Encourage collaboration between health staff members and physical education teachers to establish a healthy environment that promotes physical activity messages and activities.
- Implement individualized health plans established for students with chronic health conditions and encourage them to participate fully in structured and unstructured physical activity.

Nutrition environment and services

- Ensure access to free drinking water in the gym and other physical activity areas.
- Promote only healthy foods; physical activity, such as dance-a-thons; or nonfood items for school sports or physical education program fundraisers.

Beyond the CDC Framework

While the emphasis of our Center's *National Initiative for Transforming Student and Learning Supports* encompasses a whole school, whole community, and whole child approach, it moves beyond the limitations of the CDC framework. In particular, it provides a more unified and comprehensive approach and stresses that effective system transformation will require actions such as

- (1) expanding current school improvement policy from a two to a three component framework so that the agenda for student/learning supports is no longer marginalized,
- (2) designing and developing a unified, comprehensive, and equitable classroom and schoolwide system for student/learning supports that weaves together school and community efforts to promote healthy development and address barriers to learning, development, teaching, and parenting,
- (3) reworking existing operational infrastructure to first unify intervention activity and then, over a period of several years, develop a comprehensive and equitable approach,
- (4) facilitating system transformation (including going to scale in substantive ways and sustaining effective changes).

We have highlight all this in;

>*Whole School, Whole Community, Whole Child*

and we provide

- (1) recent guides in

>*Student/Learning Supports: A Brief Guide for Moving in New Directions*

>*Transforming Student and Learning Supports: Starting the Process*

and (2) indepth discussions in

>*Improving School Improvement*

>*Addressing Barriers to Learning: In the Classroom and Schoolwide*

>*Embedding Mental Health as Schools Change*

Concluding Comments

As with all school efforts, efforts to enhance physical activity are hindered by the budget short-falls at schools. This is especially the situation in schools serving low income families. In general, researchers report that, as compared to high-SES schools, low-SES schools are less likely to offer recess, to have a certified physical education teacher, to have access to PA equipment and facilities, or provide after schools sports (Veliz, Snyder, & Sabo, 2019).

Concern about youngsters' lack of sufficient physical activity has grown exponentially, but the matter remains marginalized in policy discussions about school improvement. There have been many well intentioned initiatives and policy reports focused on the topic, but schools in too many locales never have the resources to scale-up the type of approaches usually advocated. And with tightening budgets, the situation is worse today.

The challenge at this time is to escape old ways of thinking about matters such as physical and mental health in schools. New directions are needed.

A promising new direction is to ensure that physical and mental health are fully embedded in school improvement efforts.

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