

How Health Affects a Child's School Performance

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Health care providers often advise parents and teachers that children can learn at optimal levels only if they are healthy, says Howard Taras, M.D., Acting Chief of Community Pediatrics at the University of California, San Diego (UCSD) School of Medicine. Taras should know. He has spent his career diagnosing and treating children's illnesses. Taras is also the Chief Medical Consultant of the San Diego Unified School District. He was commissioned by the National Coordinating Committee on School Health to review hundreds of published research studies that looked at the relationship between school performance and various health concerns. He found some interesting patterns that identify why some children do not do well in school.

Getting Enough Shut-Eye

The most surprising pattern Taras noticed comes down to a simple dictum that generations have echoed for years: poor sleep equals poor grades.

"Of all the health problems investigated, poor sleep was among the most unexpected and definitive causes of poor academic achievement," says Taras. "Most children need at least nine hours of restful sleep each night. However, for many reasons, school-aged children and adolescents may receive less than the recommended amount. There is evidence that this affects school performance."

Taras advises that parents with children who are performing poorly in school or are suffering from a short attention span should consider whether their children are experiencing any of the following problems at home: poor sleep patterns, resisting going to bed, frequent awakenings during the night, sleep-disordered breathing such as snoring or sleep apnea, or daytime sleepiness. Children going through any of these sleep problems should be seen by a pediatrician.

Get Moving

Most people would agree that exercise helps kids perform better in school, says Taras. "It is well documented that physical activity improves overall health," Taras states. "Among school-aged children, physical activity programs help children develop social skills, improve mental health and are associated with fewer risk-taking behaviors. " But even with the established history of benefit and recommendations from the federal government and professional education associations,

Taras laments that daily physical education among elementary and middle-school students is rare in U.S. schools.

“When various dietary and physical activity habits are examined for their risk of causing obesity, insufficient exercise is a particularly significant risk factor for adolescent boys and girls. Yet only between 6-8% of schools provide the recommended daily physical education for the entire school year,” he notes. “If your child’s school doesn’t have a physical education program, make sure your child enrolls in an after-school physical activity of some kind. The more active your kids, the healthier they will be overall. ”

He points out that physical activity improves circulation, increases blood flow to the brain and raises norepinephrine and endorphins that are often credited with reducing stress, improving mood, and inducing a calming effect after exercise.

Importance of Breakfast

Taras notes that some children simply do not get enough to eat. When children do not consume enough food, it can affect a child’s ability to learn, a factor stated in numerous studies. Taras maintains a healthy breakfast is an effective means to improve academic performance and cognitive functioning among undernourished kids. Children with iron deficiencies severe enough to cause anemia are also at an academic disadvantage, a health problem that can be remedied with iron therapy.

“Each school district, whether populated with students from affluent or low-income families, should assess whether their student population is eating breakfast at home, and how a school-provided breakfast might decrease tardiness and improve nutrition,” says Taras. “If these findings show that a significant portion of students and families would benefit, all schools should be prepared to make those arrangements. The USDA is only going to pay for breakfast among those who qualify on an economic basis. But, more affluent parents can choose to have their kids purchase breakfast at school, if it is provided.”

Taras noted that studies of absenteeism rates among students who are offered breakfast at school found that when schools offer breakfast, children are not only more likely to attend school but also have low rates of tardiness. American-based research studies do not show any positive effects of a good breakfast on students’ academic performance once they get to school, but he noted that the studies showed that grades do improve with a school breakfast in undeveloped countries where children are malnourished.

While American children are not malnourished (that is, most of them get more than enough calories), the types of foods that make up those calories are too high in sugar (soft drinks, sweetened breakfast cereals) and fat (chips, fries, donuts), and too low in fiber and natural vitamin sources (whole grains, vegetables, fruit). A breakfast served at school will get children there on time and a healthy breakfast whether at school or at home, will help them to live a longer life.

“It is a good idea for kids, all kids, to eat a healthy breakfast. It helps get them going and establishes good eating habits for the day,” Taras says.

Don’t Underestimate the Dangers of Obesity

“The Centers for Disease Control and Prevention (CDC) reports a rapid four-fold rise in obesity among children ages 6 to 19 over the last 20 years,” says Taras, adding that it is now a common front page story.

But, he cautions that childhood obesity isn’t the whole story. It incites and exacerbates other health conditions. For example, obesity is often associated with a rise in type 2 diabetes, increased rates of cardiovascular problems such as hypertension, obstructive sleep apnea, asthma, orthopedic complications, nonalcoholic fatty liver disease, cancer, psychosocial complications and a lower quality of life among these children.

So, what’s up with this epidemic rise? How did this happen? Did schools have a role?

“The CDC’s School Health Policies and Programs Study (SHPPS), which surveyed state education agencies, school districts and food service representatives, found in 2000 that one half of all districts had a soft drink contract and that of these nearly 80% received a specified percentage of the sales receipts,” says Taras. “Fifty-six percent of elementary schools and 93% of high schools allowed students to purchase such beverages in vending machines, school cafeterias, canteens and snack bars. The study found that almost two thirds of schools received incentives after sales reached a specified amount. One third of the schools allowed advertising for foods in their buildings.”

Taras feels it’s an economic issue. The schools have cut out physical education and at the same time are promoting and benefiting from the very foods and drinks that are causing students to become dangerously overweight. He says it’s no small wonder that kids are gaining weight at astounding levels. Even parents who promote better habits at home are left trying to manage the subsequent healthcare consequences of what is promoted outside the home. Taras admits that getting kids to lose weight is an astronomical task but one that should be pursued for the health and lifelong health of their children.

It’s Hard to Go to School If You Can’t Breathe

Of the 66 studies Taras reviewed on asthma and school attendance, virtually all showed a correlation between the disease and student absenteeism.

“Children with asthma are conceivably at risk for decreased school functioning due to acute aggravations of the disease, increased absenteeism secondary to symptoms, and effects of asthma medication,” says Taras. “If there’s any good news here it is that approximately two-thirds of the published studies demonstrate no difference in levels of academic achievement or ability in children with asthma. Among those showing a difference in academic performance, the problem

was associated with severe and persistent symptoms or to other contributing social factors such as income.”

Taras is quick to acknowledge the challenges families face managing asthma in children, but he emphasizes, asthma can be managed. He recommends parents work with their pediatricians on asthma management strategies, medication delivery in school, utilization of a school clinic when available, reducing asthma triggers, and taking advantage of community services such as attending an asthma camp or a swimming program for children with asthma.

Dealing with a Chronic Health Problem

When it comes to chronic diseases and academic performance, Taras found an association between the child’s health and school attendance, and in some cases the diseases also affected academic achievement, which would not come as a surprise to most parents.

For example, Taras found that most diabetes studies demonstrated an association between poor cognitive functioning and early onset of diabetes (under the age of five years) and/or a history of dangerously low sugar levels.

“Some children with diabetes are more likely to be at an academic disadvantage because of early onset diabetes and severe fluctuations in sugar control, sometimes leading to seizures,” says Taras. Preventing sugar fluctuations is the one factor that can most be influenced by school practices, he adds. Technologies such as the insulin pump that delivers insulin regularly throughout the body can help children control their glucose levels while at school. Staff assistance and support of children who need help with their pumps and close observation for signs of hypoglycemia can result in better glucose control and higher academic functioning.

For children with sickle cell anemia, Taras concedes the outlook for academic achievement has its challenges. Published research supports the fact that the disease often affects attendance and school performance. Children frequently endure pain and are prone to anemia, retinal problems and delayed growth. Taras says the research reports that one of the biggest threats to cognitive functioning from the disease is a narrowing of small blood vessels that result in strokes, most are very minor, but their effects add up over time. Taras notes that the challenge for both parents and schools is to pay special attention to these children, particularly for those having academic difficulties but also students experiencing acute chest pain, acute anemia or a diagnosis of elevated blood pressure, each a risk factor for stroke.

Other diseases such as epilepsy, cancer, hemophilia, congenital heart conditions and HIV can also impact children’s school attendance and achievement according to Taras. “Difficulties with these chronic conditions may have direct effects on learning. Often they make it hard for children to attend school regularly over long periods of time and that can also have an impact on their ability to achieve academically.

“Overall, we know that children need to be healthy in order to learn at their highest potential,” says Taras. “Sometimes children suffer from a chronic disease that cannot be helped, and in those cases parents and teachers and children themselves can only do the best they can, considering the circumstances. But in most cases, it is not a chronic health issue, but one that is resolvable such as getting enough sleep or exercise, eating breakfast or addressing extra pounds. Children can’t tackle these issues alone, they need parental support.”

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