

# TAKING CARE OF THE STUDENT – THE FORGOTTEN ELEMENT IN EDUCATION

By Cynthia E. Johnson with Lisa Lindberg

*The surgeon general said that America is swimming in an ocean of stress. If this is true, our children are drowning in it. ~ Robert Roth, Vice President of the David Lynch Foundation*

A teacher of a Montgomery County high school describes the 7:30 AM morning: kids with hoods pulled over their eyes, practically sleepwalking. At their desks, students are slumped over, exhausted – sleep deprived.



**Students meditate during ‘Quiet Time’ at the Ideal Academy Public Charter School**

A school counselor describes a student whose deep anxiety constricts her ability to understand a basic math concept, and another student whose pressure to succeed is so intense that anxiety escalates into insomnia, depression, and feelings of suicide.

In most schools in our country, the student himself, and his instrument of learning – his physiology – are being ignored. We are experiencing – possibly promoting – epidemics of sleep deprivation and stress in our schools, and in the general public. Not only do we *not* pay attention to students’ physical health, we do the opposite: impose physical and mental strain – sometimes to the breaking point – often with serious, long-term results for both physical and emotional health.

In this article, we look at some recommendations and programs addressing this problem. We begin with refreshing our understanding of the goal of ideal education.

Next we look at sleep deprivation, stress, anxiety, and related problems of ADHD and depression, and the impact on student health and learning. Next, advice by professionals who work in this field of stress and adolescence will be presented. Finally, we look at promising examples where recommendations are successfully implemented: a school in D.C., the Ideal Academy Public

Charter School, experiencing remarkable results by incorporating “Quiet Time” into the daily routine; and breakthrough research on ADHD and “Quiet Time” from several middle schools.

## **WHAT DOES EDUCATION REALLY MEAN?**

*All that lies before us and all that lies behind us are tiny matters compared to what lies within us. ~ Emerson.*

Education comes from the Latin root '*educere*', meaning to 'draw out from within' or to 'lead forth'. 'Education' means something other than filling up the mind with information. Socrates said, “Education is the kindling of a flame, not the filling of a vessel.” It involves cultivating the student’s inner genius, innate intelligence, creativity, consciousness.

*Quite clearly the two great things for which we aim are the improvement of intelligence and the deepening and the extension of the feeling of friendliness and love.*  
~ Aldous Huxley

A student truly being educated is not merely learning information. He is cultivating the quality of his awareness: becoming more awake, clear, creative. He is developing his character: virtues of friendliness, helpfulness, compassion. And cultivating a love of learning and sense of vitality: feeling interested, enthusiastic, capable, confident.

*The qualities we often find in great people – flexibility, curiosity, energy, receptivity to new ideas, and lovingness – are first found in children and then maintained through adulthood. ~ Dr. Melanie Brown, Attaining Personal Greatness: One Book for Life*

But what are we doing to cultivate these qualities in our students? It seems clear that we often forget the meaning and goal of education.

## **SLEEP DEPRIVATION, STRESS, AND THE PROCESS OF LEARNING**

How a student feels – whether rested and relaxed, or exhausted and stressed – has everything to do with how well he learns.

This is because there are two basic components in the process of education: the known, or the subject matter; and the knower – the student himself. Of these two the student is fundamental. The quality of knowledge that a student gains will only be as good as the quality of his awareness and physiology: whether tired and constricted by stress; or rested, alert, relaxed, receptive, and curious. Yet what is not being addressed in our schools today is this fundamental mind-body component.

Most students are not getting enough sleep. Po Bronson’s article *Snooze or Lose* (*New York magazine*, Oct 7, 2007) presents research on sleep deprivation, applicable to most of America’s student – and adult – population. Bronson quotes Dr. Matthew Walker of UC Berkeley:

*“We have an incendiary situation today, where the intensity of learning that kids are going through is so much greater, yet the amount of sleep they get to process that learning is so much less. If these linear trends continue, the rubber band will soon snap.”*

Even one hour less sleep has a profound impact. “Because children’s brains are a work-in-progress until the age of 21, and because much of that work is done while a child is asleep, this

lost hour appears to have an exponential impact on children.” Bronson cites research on brain functioning, academic performance, emotions, and other problems. For example, obesity is tied to repeated sleep deprivation – hormonal imbalance affects hunger regulation and breakdown of fat. And the tragically high incidence of teenage car accidents is associated with sleep loss.

Compounding sleep deprivation is the stressful pressure for high achievement. Bronson describes the grinding schedule of typically ‘elite’ students, part of a culture locked into notions that high pressure and over scheduling are necessary for success in school and life.

And yet, research shows the opposite. Lack of sleep, over scheduling, and high pressure lead to high anxiety and stress. Robert Sapolsky, international stress expert, says a common result from an overworked, worn out stress response is depression. Prolonged stress – when the stress response stays on day after day – limits and constricts brain functioning.

I spoke with William Stixrud, Ph.D., a prominent clinical neuropsychologist whose group practice in Silver Spring specializes in neuropsychological assessment of children, adolescents, and adults with learning and/or emotional disorders. Dr. Stixrud lectures and writes extensively about student learning, adolescent development, sleep deprivation, and the ways stress affects the developing brain.

Dr. Stixrud explains: “Learning under high stress and fear is literally ‘wrong-headed,’ as it is incompatible with what we know about how the brain works. Not only does stress interfere with functions such as attention, memory, organization, and integration, but prolonged stress actually kills brain cells and shrinks the brain’s main memory structures. Stress burns out their brains in the long run. When someone says, ‘I’m stressed out of my mind,’ he is literally telling the truth. This is not what students need in order to learn, remember, perform at peak efficiency, and enjoy life.”

The emotional anxiety and turmoil accompanying the biochemistry of prolonged stress often leads to behavior problems and depression. It also demands relief. Young people often seek this relief in the anaesthetizing effect of alcohol and drugs. With lower income children, where stress levels are even higher, this is even more prevalent.

### **Attention-Deficit Hyperactivity Disorder (ADHD)**

Another widespread disability related to stress is Attention-Deficit Hyperactivity Disorder (ADHD). Studies published in journals *Child Development*, *Molecular Psychiatry*, and others shed light on the relationship between stress and ADHD, states Dr. Sarina Grosswald, an expert in cognitive learning who recently conducted groundbreaking research on ADHD (see below). The areas of the brain adversely affected by stress are the same areas affected by ADHD.

Could ADHD be caused, at least in part, by stress? At the very least, the symptoms of ADHD are aggravated by stress, including impulsivity, mental and physical restlessness, inattention, distractibility, and disorganization. And the current solution – medication – is far from perfect. While it improves symptoms in many children, it often creates unacceptable side effects and is ineffective for many children with ADHD. There are a number of concerns about long term use of stimulant medication, including concerns about growth, cardiac health, and liver function.

There is much room for improvement in the way we treat kids with ADHD.

In summary, the indicators are overwhelming that our society and schools are neglecting the fundamental component of education – the student himself, his instrument of learning, his physiology.

Now that we know about this heartbreaking trend affecting our youth today, let’s look at some proposed recommendations, and some approaches to these problems that are meeting with success.

### **SOME SOLUTIONS**

Addressing the problem of sleep deprivation, high schools in Edina, Minnesota and Lexington, Kentucky changed morning start time to an hour later. This had significant results in improving academic achievement, involvement in extracurricular sports, and overall well-being of the students, including fewer teenage car accidents. This is an important investment that all school systems should take seriously.

In his work with parents, students, and educators, Dr. Stixrud gives these recommendations:

- Make a balanced, healthy life a priority for you and your children. It will pay off in the long run in your having more happy and successful lives.
- Remind yourself how much more productive and happy you yourself are as adults when healthy and clear minded – kids are no different.
- Realize that students learn more when they feel safe, included, accepted, and challenged – but not rushed.
- Take developmental readiness into consideration; do not push for teaching academic skills at younger and younger ages. From a neuro-developmental point of view it makes no sense to push learning before the student is developmentally ready, as most things are more easily learned by a more mature brain.
- Consider and discuss what truly successful adults are like – doing what they love instead of being concerned about competition and success.
- Make sleep a top priority, teaching kids about the effect of sleep deprivation. Regularity of bedtime promotes better quality sleep.
- Teach kids about the effects of prolonged stress on the brain. Discuss the value of deep rest and what it can contribute to your activity.

Regarding this last recommendation, Dr. Stixrud says, “There is an enormous body of research that emphasizes how important deep rest is for the nervous system. The nervous system works best when adequately rested. And we know that sleep does not always adequately dissolve deep-rooted stress.” To address these more deeply-rooted problems, Stixrud recommends the easily learned meditation technique of Transcendental Meditation – either incorporated into the school’s routine, or practiced at home.

He states, “I have been a big fan of using Transcendental Meditation for many years,



due in part to the program’s unparalleled ability to create the experience of ‘restful alertness.’ This unique state produces high levels of coherence or orderliness in the functioning of the brain, which results in the experience of increased peacefulness, harmony, mental clarity, and the ability to see things in perspective.”

Dr. Stixrud is on the Advisory Board of the David Lynch Foundation, which is funding the implementation of Transcendental Meditation in public and private schools in the U.S. and around the world, including some in Washington, D.C.

### **Ideal Academy Public Charter School’s program of ‘Quiet Time with Transcendental Meditation’**

One school in Washington, D. C. – the Ideal Academy Public Charter School – has taken to heart recommendations for nurturing the student. In addition to its later start time and healthy hot lunches, they have pioneered the program of ‘Quiet Time with Transcendental Meditation’ as part of their chartered purpose of attending to the well-being of the student. Fifth graders, middle school, and high school students participate in Quiet Time, as well as most faculty and staff.

On the morning I visit Ideal Academy, the students are arriving and the halls are full of noisy teenage exchanges. The school’s principal, Dr. George Rutherford, greets students as they enter, smiling warmly, exchanging banter. He looks youthful and vibrant for his 45 years in public education.

Dr. Rutherford explains how he first came upon Transcendental Meditation in the early 1990’s when principal of the Fletcher Johnson Educational Center – a school in one of the most dangerous neighborhoods in D.C. “Dr. John Hagelin, a Harvard-trained quantum physicist and educator, came to my school and talked to my kids about politics. I was intrigued with what he had to say – he talked about educational programs that develop human consciousness.”

Dr. Hagelin, Director of the Institute of Science, Technology and Public Policy, has led an international scientific investigation into the foundations of human consciousness and practical applications for education, public policy, and world peace.

Dr. Rutherford was impressed, and he and his wife learned the technique. After practicing the technique for some time, his colleagues saw a difference in him. “I was able to do more and I was not as hyper.” His wife had initially been apprehensive “because she is a devout religious person and thought it might conflict with her Christian belief,” but after learning the technique,





“she realized it had nothing to do with religion, and she encouraged our four children to learn also. It was a beautiful experience.”

“Soon after this I visited the school in Fairfield, Iowa,” a kindergarten through 12<sup>th</sup> grade school where students practice Transcendental Meditation. “I saw how happy the students were and wanted to bring the same kind of atmosphere back to my students.” Dr. Rutherford continued, “Having a way to become calm and peaceful, yet awake, alert – that’s just what students need, but don’t usually have. All these things – my own experience, the school in Fairfield, and the impressive amount of research backing it up – led to my decision to bring this to my students” – first, at Fletcher Johnson. The positive changes were “dramatic, almost miraculous” in terms of school atmosphere, student behavior, and academic achievement during a three year trial.

Dr. Rutherford later came to be principal at the Ideal Academy Public Charter School, where ‘Quiet Time with Transcendental Meditation’ was included in the charter. “The program was included in the proposal agreed upon by the D.C. Board of Education,” explains Dr. Rutherford.



On the day I visit Ideal Academy, I experience what Dr. Rutherford described: deep silence and settledness as students, faculty and staff participate in Quiet Time morning and afternoon. “The personal experiences and research are showing the effect these periods of silence have on learning and teaching,” said Rutherford. Here are some things the students have shared:

“My grades got better because I’ve been calm in class.”

“I used to be grumpy – I had an attitude problem. Now all I have to do is meditate. If you keep that stress in, it bottles up, and you need to let it out. So you meditate... and it goes away.”

“I notice I haven’t been mad for awhile, since I learned TM. I used to get in fights and I used to talk about people behind their back. And it helps me not to get distracted. My mom said that when I’m in class, I was bored. But now, I’m not really bored.”

“Before I started meditating, when I didn’t understand something, I would sit there and get mad and just want to skip it. But now, if I don’t get something, I’ll ask the teacher more questions, and I do better now.”

“I have asthma, and physically, TM has helped me with my respiration and breathing. Academically I have been more stimulated towards learning and I have gained a quiet patience and tolerance towards math. My teachers have commented on changes in me.”

Research supports these experiences. The 2005-2006 pilot project at Ideal Academy, along with research at middle and high schools in national studies using Transcendental Meditation, show the following results:

- Reductions in anxiety, emotional distress, suspension rates, symptoms of depression, high blood pressure, hyperactivity, and inattentiveness
- Increases in academic achievement, overall self-concept, happiness, receptivity, and readiness for learning.

At a recent New England Conference on Children’s Health and Education held at the Harvard Club of Boston, Drs. Rutherford and Hagelin addressed educators about the effects of Transcendental Meditation in the classroom. Dr. Hagelin explained what happens during the practice: “The brain experiences a profound transformation, becoming coherent, balanced and calm. This orderly brain functioning is correlated with emotional stability, IQ, creativity, moral reasoning etc. Everything good about the brain depends upon its orderly functioning. ”

Dr. Rutherford summarized, “As educators, our responsibility is to change the quality of life of young people, isn’t that true? We should be jumping on whatever program that has research behind it that has proven that it can make a difference,” and referred to some of the 600 studies, including through the National Institutes of Health (NIH), that have shown the wide-ranging effects of the technique.

### **Relief from both ADHD and Its Over-medication**

ADHD is another epidemic greatly exacerbated by stress. Therefore, any approach that reduces stress would have an impact on ADHD.

This was the idea Dr. Sarina Grosswald investigated in her research on ADHD. Dr. Grosswald conducted her studies at DC-area middle schools that have been implementing ‘Quiet Time with Transcendental Meditation.’ Her study, published in the online journal *Current Issues in Education*, received international media attention, including on ABC and PBS. It showed this practice significantly reduces ADHD symptoms: reductions in anxiety, improvements in

organizing, planning, problem-solving, task-execution, focus of attention, and memory. Students report being able to focus better, control their impulsivity, and feel more confident.

Some meditating students have been able to go off medication. PBS's "On the Contrary" featured a program "Medication or Meditation," including an interview with American University undergraduate Josh Goulding, diagnosed with ADHD in grade school. "I was on medication up through my junior year. Then I started TM. In three months my doctor said he didn't think I had ADHD anymore, so I came off the medication," and felt fully adjusted within two- three months. Josh has since graduated and works as a financial advisor. He says this practice has made all the difference in his ability to be successful in his work.

Dr. Grosswald stated, "Unlike drugs, Transcendental Meditation doesn't just treat the symptoms. It influences the underlying cause of the disorder – which means it doesn't just create a temporary effect but can improve the condition permanently. It offers a mental and physical quietness that an ADHD child so rarely gets to experience."

### **A Vision of Possibilities**

I want to return now to the opening consideration of this article: about taking care of children and reminding ourselves that ideal education is meant to unfold the full potential of the learner. This includes unfolding the love of learning, passionate interest in life, flowing creativity, delight and joy in learning.

I saw this kind of enjoyment when I visited a drama class at the Ideal Academy. When students were reading a script aloud to the class – shyly and haltingly, but with interest and sincerity – the teacher gave sensitive and enthusiastic encouragement to them. The students clearly felt a sense of openness and safety. High challenge, safe environment – conditions Dr. Stixrud and others have identified as fundamental for optimal learning.

The current trend of realizing that we need to take better care of our children, exemplified by Ideal Academy and other schools, gives a real hope for a practical solution to the epidemic of stress in our young people. We can help transform their experience of drowning in an ocean of stress into the experience of swimming freely in an ocean of all possibilities.

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