

## WHAT IS MINDFULNESS?

Mindfulness is defined as the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experiences moment by moment. Mindfulness has its origins in the Buddhist tradition, through Eastern practices of meditation. It is not meditation however, since the goal is to have an increased awareness of the present moment, not to achieve a higher state of consciousness.

SOURCE: Karen E. Hooker and Iris E. Fodor. (2008). Teaching Mindfulness to Children, *Gestalt Review*, 12(1):75-91, 8.

## THE BENEFITS OF MINDFULNESS

If research conducted primarily with adults is any indication, mindfulness-based approaches—yoga and meditation—can help chronically-stressed youth build their aptitude in controlling emotions and intrusive thoughts. Yoga, meditation and other mindfulness practices have beneficial effects on the ability to respond to stress without adverse psychological or physical outcomes.

Mindfulness practices have also been reported to have positive effects on adult physical and mental health, such as reducing mood and anxiety disorders, distress and blood pressure.

## Say OM MINDFULNESS MAKES A DIFFERENCE IN THE LIVES OF URBAN YOUTH

Although youth may be more “in the moment” than adults, young people can move through their days on autopilot, especially stressed out youth in underserved urban communities. These youth are at risk for a host of stress-related consequences, including social-emotional difficulties, behavior problems, and poor academic performance. Mindfulness-based approaches may help chronically stressed and disadvantaged youth by enhancing their ability to regulate their thoughts and emotions.

This issues brief details findings from a pilot randomized controlled trial that assessed the outcomes of a school-based mindfulness intervention. This research represents a partnership between the Holistic Life Foundation and researchers at the Prevention Research Center at Penn State University and the Center for Adolescent Health and the Center for the Prevention of Youth Violence at the Johns Hopkins Bloomberg School of Public Health. The findings suggest the intervention was:

- Attractive to students, teachers and school administration, and
- Effective in impacting stress-related problems, including rumination, intrusive thoughts and emotional arousal

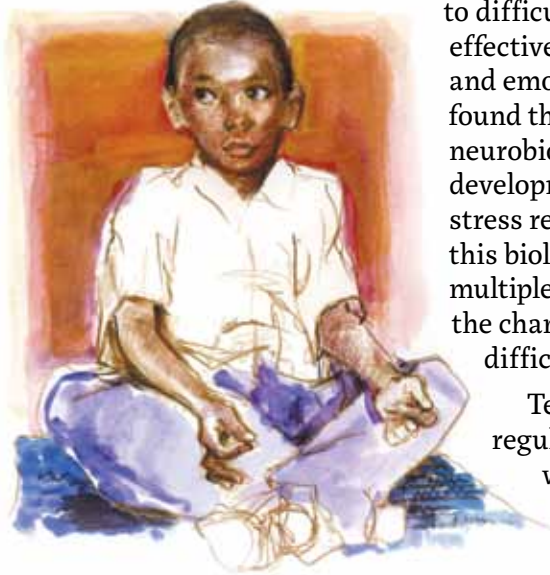
### ACKNOWLEDGEMENTS

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## STRESSED OUT KIDS

Poverty stresses out youth. How young people learn to manage stress can greatly affect their well-being, relations with others, and success in school and life. Poverty and neighborhood risks have many repercussions, and if youth are not supported, it may lead to a pathway pitted with poor performance in school, dropping out of school, depression, mental health problems, alcohol and drug use, and risky sexual behaviors.

One reaction to stress is a style of thinking linked to anxiety and depression, which includes rumination and intrusive thoughts. Rumination, which is defined as negative, brooding, or obsessive thoughts, has been associated with depression and anxiety symptoms in young people. Both reactions can contribute to allostatic load, the cumulative



effect of chronic stress on the body—especially the cardiovascular system.

Persistently stressed children are vulnerable to difficulties in learning how to effectively regulate their thoughts and emotions. Emerging evidence has found that childhood adversity triggers neurobiological events that can alter brain development, potentially impairing the stress response systems. Consistent with this biological research, being exposed to multiple poverty-related risks increases the chance that children will have more difficulty controlling their emotions.

Teaching stressed children how to regulate emotions may provide them with new skills that promote healthy stress-response systems in the brain and may also enable them to avoid the downward

trajectory faced by many at-risk youth as they progress through adolescence into adulthood.

## MEET THE YOGIS

The word “yoga” conjures images of well-heeled suburbanites and superstars—think Madonna and Sting as celebrity practitioners—doing downward dog pose in designer duds and perspiring delicately in poshly appointed studios.

West Baltimore’s Ali and Atman Smith, along with Andres Gonzalez, want to change the perception of yoga as exercise for the elite. They believe in yoga for everyone, especially school kids from higher-need Baltimore neighborhoods.

Their non-profit company, the Holistic Life Foundation ([www.hlfinc.org](http://www.hlfinc.org)) is dedicated to the concept that yoga and mindfulness practices teach people how personal health is connected to the health of their environment. “Yoga can heal mind, body and spirit,” says Ali Smith. “It can also build awareness of what you eat, the quality of the air you breathe, the toxins in the environment— and the ways they impact how you think and feel.”

The Holistic Life Foundation works extensively with youth in Baltimore’s poorer neighborhoods, teaching yoga, mindfulness and breathing practices to help youth and adults with stress, positive coping techniques, and to give them a quiet space in their often turbulent lives.

The foundation collaborated with Penn State Prevention Research Center and the Center for Adolescent Health in the yoga intervention pilot study at four Baltimore City schools. “We structured the classes so they included active poses and breathing, and at the end, mindfulness and relaxation techniques,” says Ali Smith. “At the end, even the hyperactive boys in the classes were lying there and doing it.”

The Smith brothers and co-founder Gonzalez saw positive behavior changes during the 12-week intervention. “The most mischievous boys were calmer and more focused,” says Gonzalez. “The cool thing was that a lot of the kids

went home and taught the yoga and breathing exercises to their parents. And we’re talking some pretty stressed out households.” The Smith brothers grew up with yoga. “Our father had us meditating before school,” Atman said.

They met Gonzalez at the University of Maryland, College Park. “We started asking questions about the problems of the world,” said Ali. “But rather than sit back, we decided to do something about it.”

They started the Holistic Life Foundation in 2001. In addition to the yoga in-school and after-school programs, the group also conducts a mentoring program, tutoring and homework assistance, and environmental advocacy projects. Future plans include expanding the mindfulness intervention.

“When we started the program in West Baltimore, the kids thought yoga was the little guy from ‘Star Wars,’” says Atman. “Now they see that yoga is the true meaning of the word ‘respect’—it helps you to see the light in people.”

# THE INNOVATIVE URBAN YOUTH INTERVENTION

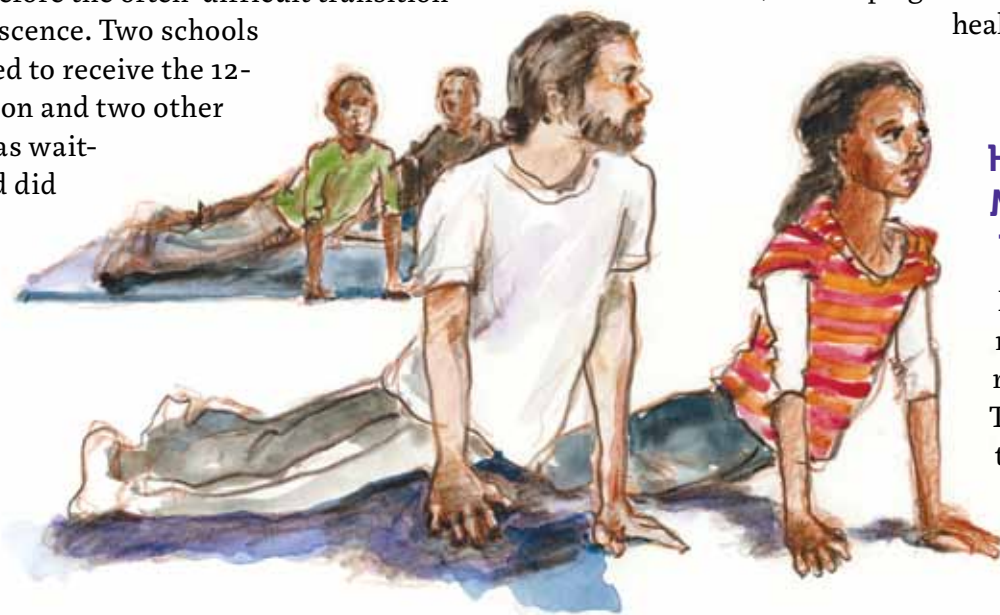
Prevention researchers from the Johns Hopkins Bloomberg School of Public Health and Pennsylvania State University and practitioners from the Holistic Life Foundation developed and evaluated a mindfulness-based intervention for youth. Most of the participating youth were African American and lived in low-income neighborhoods with high levels of violence.

The aim of the trial was to evaluate the feasibility and acceptability of the intervention and to measure how it improved the youth’s involuntary stress responses, mood and relationships with peers and teachers.

## Participants

The trial included approximately 97 fourth and fifth graders in four Baltimore City public elementary schools. Fourth and fifth graders were selected to participate in order to enhance these students’ competencies before the often-difficult transition into early adolescence. Two schools were randomized to receive the 12-week intervention and two other schools served as wait-list controls and did not receive the intervention until the pilot trial was completed.

The instructors wove into the guided mindfulness practice information about topics such as identifying stressors, using mindfulness techniques to respond to stress, cultivating positive relationships with others, and keeping one’s mind and body healthy.



## How We Measured Results

Involuntary stress responses were measured using The Responses to Stress

Questionnaire, a youth self-report checklist that

assesses how children respond to and cope with stress, rumination, intrusive thoughts, emotional arousal and impulsive action.

Depressive symptoms were measured with The Short Mood and Feelings Questionnaire—Child Version, a 13-item report scale assessing depressive symptoms experienced over the past two weeks. Relations with peer and school were evaluated with People in My Life, a self-report measure that gauges the relationships children have with their parents, friends, school, and neighborhood.

## Intervention Components

Participants attended the mindfulness program during school hours four days per week for 12 weeks. Each session lasted 45 minutes and fourth and fifth graders were taught together. Key components of the intervention centered on yoga-based physical activity, breathing techniques, and guided mindfulness practices. In each class, youth were taught yoga-inspired postures and movement series, including bending, stretching and fluid movement. These exercises trained the youth to use their breath to center and calm themselves.

*Whatever you are doing, ask yourself, “What’s the state of my mind?” – Dalai Lama, 1999*

## MINDFULNESS INTERVENTION OUTCOMES

Students were enthusiastic about the program, with 73.5 percent of students at one intervention school completing at least 75 percent of the classes. Focus groups conducted with students and teachers indicated that the students had a positive experience in the program and learned skills that helped them in their day-to-day lives.

*“Most important thing I learned in the program is that it’s all different ways to deal with your stress, like instead of fighting and stuff.”*

—5th grade boy

*“It helps you relieve stress when you really feel stressed out or you’re really mad and focus on what’s inside of you and just make sure that you stay calm.”*

—5th grade girl

*“The program has helped me because now I know different routines and exercises that I can do at home that help me lower and reduces my stress. So whenever I get stressed out I can just do a pose and sometimes I can show my mother and my family.”*

—4th grade girl

Further focus groups revealed that teachers were uniformly supportive of the idea of training urban youth using yoga and mindfulness techniques, especially if they could aid students struggling with behavior problems, high activity level, and poor attention-focus. Some teachers noted that they observed improvements in their students.

The intervention group reported significant improvements on the overall responses to stress scale of Involuntary Engagement, compared to the control group. In addition, significant differences were found on three of the five subscales—rumination, intrusive thoughts, and emotional arousal.

The intervention group’s reduction in involuntary stress reactions suggests that mindfulness-based practices were effective in helping youth self-regulate their emotions and reduce worrying thoughts.

*If you want to be happy, be.  
— Henry David Thoreau*

## CONCLUSION

Mindfulness-based approaches may be advantageous to urban youth by improving their capacity to cope with persistent stress. Enhancing responses to stress and the ability to control negative feelings and troubling thoughts among at-risk youth has the potential to encourage the development of core competencies that will benefit young people in school, at home and with friends, in the community—and throughout life.

Content for this Issues Brief is based on the following article: Mendelson, T., Greenberg, M.T., Dariotis, J.K., Feagans Gould, L., Rhoades, B.L. & Leaf, P.J. (2010). Feasibility and preliminary outcomes of a school-based mindfulness intervention for urban youth, *Journal of Abnormal Child Psychology*, 38, 985-994. Retrieved on January 4, 2011 at <http://www.springerlink.com/content/y574726332407006/> A complete list of references can be found in the “What’s New” section of our website: [www.jhsph.edu/adolescenthealth](http://www.jhsph.edu/adolescenthealth)

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