The “Big Five”: A Starting Point for Those on the Front Line

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Rarely does a week pass without a new media report about childhood obesity. The problem has earned national attention, most recently with First Lady, Michelle Obama’s *Let’s Move!* program. Despite all the interest, solutions to the epidemic remain elusive, and effective and safe obesity prevention and treatment programs for children in general remain scarce.¹ Those that are available are typically small, expensive to run, and can at best accommodate a small proportion of the children in need. The widespread use of medications for the treatment of obesity in children is not on the horizon and surgery remains an option for only a small number of very obese adolescents.

Changes in our built environment and in public policy are likely to be a major part of a successful solution. These could include, for example, encouraging more children to walk to school or changing the way some foods are marketed and sold to children. Such changes take a very long time to bring about and often face stiff resistance from industry or others. Waiting for a healthier environment is not an option. Today’s children will be middle-aged adults by the time substantial environmental changes occur. There are practical settings in which treating and preventing childhood obesity can happen now, including schools, where children spend much of their time, and primary care practices, through which they regularly receive care. The latter setting has been the focus of my research.

The American Academy of Pediatrics (AAP), the American Heart Association (AHA), the American Medical Association (AMA), the American College of Clinical Endocrinology (ACCE), and the National Committee for Quality Assurance (NCQA) have all issued guidelines and statements urging primary care physicians to identify childhood overweight and obesity and provide appropriate counseling.^{2–6} This is all fine and well, but what exactly are physicians on the front line supposed to do?

Primary care physicians are uncomfortable providing obesity-related counseling and frequently fail to do so.^{7–9} In the process of educating primary care physicians, and writing my book, *Child Obesity: A Parent’s Guide to a Fit, Trim and Happy Child* (Prometheus Books, 2006),

I developed a simple and quick paradigm for providing counseling which can be incorporated into busy visits. Based on the 5As paradigm originally developed by the National Cancer Institute, it involves *asking* about obesity-related behaviors, providing concrete *advice* about unhealthy behaviors, coming to an *agreement* about how to change unhealthy behaviors, providing assistance in the form of referrals or other resources, and *arranging* for follow-ups to monitor progress.

There are, of course, many specific behaviors that contribute to childhood obesity, but a handful of behaviors contribute disproportionately. I call these low-hanging-fruit behaviors, the “Big Five.” These include:

1. The frequency of fast food consumption per week
2. The total volume of sweetened beverages consumed per day
3. The total number of hours of screen time per day
4. The number of days per week during which a child is physically active for 30 to 60 minutes, and
5. The number of days per week that a child eats dinner with at least one parent.

Versions of questionnaires that incorporate the Big Five are widely available both in print and online.^{5,10} A Big Five questionnaire can easily be completed by a parent or an older child in a couple of minutes in a busy waiting area. A completed questionnaire can then be reviewed by a healthcare provider who in turn can provide counseling as time and interest allows. The Big Five is a useful starting point for those on the front lines. It is not a magical solution to the problem, but it does have distinct advantages over other approaches. First, it is simple and not too time consuming. Second, a completed questionnaire opens the door to discussions about weight and nutrition. Finally, and most importantly, since it emphasizes behaviors rather than weight, the Big Five can be collected from all children, regardless of their weight. This avoids stigmatizing overweight and obese children.

Critics may charge that initiating counseling based on the Big Five has not yet been shown to influence children’s weight (although I am in the midst of carrying out research to determine the effectiveness of this approach).

Keep in mind that no practical approach for primary care has yet been shown to be successful or widely adopted. We cannot wait for a perfect solution. A 2005 Institute of Medicine Report on childhood obesity concluded, "Knowing that it is impossible to produce an optimal solution a priori, we more appropriately adopt surveillance, trial, measurement, error, success, alteration and dissemination as our course, to be embarked on immediately. Given that the health of today's children and future generations is at stake, we must proceed with all due urgency and vigor."¹¹ The time to take action is now, and the Big Five is a simple way to begin.

Author Disclosure

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References

1. Bluford DAA, Sherry B, Scanlon KS. Interventions to prevent or treat obesity in preschool children: A review of evaluated programs. *Obesity*. 2007;15:1356-1372.
2. Krebs NF, Himes JH, Jacobson D, Nicklas TA, Guilday P, Styne D. Assessment of child and adolescent overweight and obesity. *Pediatrics*. 2007;120:S193-S228.
3. American Heart Association Nutrition Committee. Diet and lifestyle recommendations revision 2006: A scientific statement from the American Heart Association Nutrition Committee. *Circulation*. 2006;114:82-96.
4. Rao G. Childhood obesity: Highlights of AMA Expert Committee recommendations. *Am Fam Physician*. 2008;78:56-63.
5. Dorsey KB, Wells C, Krumholz HM, Concato JC. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. *Arch Pediatr Adolesc Med*. 2005;159:632-638.
6. National Committee for Quality Assurance. www.ncqa.org/Portals/0/PublicComment/HEDIS2009/Obesity_Memo_PDF.pdf. Last accessed April 8, 2008.
7. Story MT, Neumark-Stzainer DR, Sherwood NE, et al. Management of child and adolescent obesity: Attitudes, barriers, skills, and training needs among healthcare professionals. *Pediatrics*. 2002;110:210-214.
8. Perrin EM, Flower KB, Garrett J, Ammerman AS. Preventing and treating obesity: Pediatricians' self-efficacy, barriers, resources, and advocacy. *Amb Pediatr*. 2005;5:150-156.
9. Rao G. Pediatric obesity-related counseling in the outpatient setting. *Amb Pediatr*. 2005;5:377-379.
10. "Healthy Behaviors for Life." www.HB4Life.com. Last accessed August 25, 2010.
11. Koplan JP, Liverman C T, Kraak V A, eds. *Preventing Childhood Obesity: Health in the Balance*. Washington, DC: National Academies Press; 2005:18. Available at: www.nap.edu. Last accessed August 25, 2010.

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