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Children With Obesity How Are They Different?

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One-sixth of US children and adolescents aged 2 to 19 years are obese, and about the same proportion are overweight.[1] Compared with their normal-weight peers, children with obesity are at higher risk for developing health conditions, such as asthma, orthopedic problems, and depression, as well as adult obesity, diabetes mellitus, and cardiovascular disease.[2] Children and adolescents with obesity are also at higher risk for adverse psychosocial consequences, including teasing, bullying, and depression,[3] as well as a lower socioeconomic position in adulthood.[4] A responsibility of society, including medical care, is to reduce these excess burdens by treating children with obesity equitably as well as effectively. Here, *treating* means not only therapy for excess weight but also how we address other attributes that accompany obesity. Sometimes it is better to single out children with obesity for special treatment and sometimes it means treating them the same way as all children. In many circumstances, the answer is somewhere in between.

One example of special treatment with few apparent downsides is appropriate dosing of commonly used medications in children with obesity. In this issue, Harskamp-van Ginkel et al[5] report the paucity of basic pharmacokinetic information for virtually all commonly used medicines in children with obesity. Reviewing articles published during the past 4 decades, they found relevant data for only 21 drugs, almost all of which are used infrequently inpediatric practice. Only one study examined acetaminophen, and none addressed other pain medications, commonly used antibiotics, or contraceptives. Moreover, no single approach to weight-based dosing emerged from this literature; some regimens appear to be susceptible to overdosing and some to underdosing. In the arena of medication dosing, we need much more information about when and how to treat children with obesity differently.

On the other side of the spectrum are ways we single out children with obesity that have few upsides. Peers, teachers, parents, the mass media, and even well-meaning clinicians stigmatize children with obesity, often unknowingly. Among 2516 adolescents in Minnesota, more than 40% of overweight children in early adolescence reported being teased about their weight.[6] Almost 90% of 361 adolescents attending national weight loss camps reported weight-based teasing, and two-thirds cited cyberbullying or physical

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aggression.[7] Television news segments about childhood obesity often show “headless” children engaged in unhealthful behaviors.[8] Even obesity researchers and clinicians contribute to weight-based bias.[9] We all need to do better, avoiding stigma while still encouraging children and their families to address obesity as a health issue. In clinical practice, we can start by avoiding terms that parents and children generally view as stigmatizing, such as “extremely obese,” “fat,” and “obese,” in favor of terms that are less fraught and often more motivating such as “unhealthy weight” and “weight problem,” or reducing use of weight-related terms altogether to focus on healthful behaviors.[10]

In large part, our penchant for stigmatizing children or their parents for excess weight arises from the notion that personal responsibility is the culprit.[11] But children are no match for the strong profit motive to sell more calories, or for activity-sparing technology, screens tiny to huge, and noise and light that hinder sleep. Exhorting better behavior in such restrictive environments without strong support for behavior change is at best ineffectual and at worst scapegoating.

One response is to change such environments through policy actions,[12] which incur less blame than those that target individuals. Despite cries of the “nanny state” taking over,[13] many of these macro-level responses are not monolithic; they leave room for individual choice as well. For example, labeling menus with calories informs but does not force choice.[14] Likewise, taxing sugar-sweetened beverages does not take them off the store shelves. Community-wide interventions are promising because they typically combine several policy and environmental strategies simultaneously.[15]

Success of macro-environmental policies usually accrues from moving the weight needle of large populations. Such policies can benefit both lean and overweight individuals, and can be the cornerstone of prevention.[16] Typically, however, because individual weight change is modest, these policies do not address the particular needs of children who have already developed obesity. In addition, even such broad population approaches may not automatically solve the widening socioeconomic and racial and ethnic disparities in individuals with obesity. Among adults, for example, self-reported use of calorie information tripled from 8% to 25% after a law mandated that Seattle-area restaurants post calories on their menus.[17] However, customers whose households had incomes of at least $75 000 per year were almost twice as likely to use the posted calorie information as were customers whose incomes were less than $35 000peryear. Policymakers should ensure that implementation of obesity prevention strategies benefit all population groups.

If appropriately dosing medications is an example of how we should treat children with obesity differently, and avoiding scapegoating is an example of how we should regard children with obesity the same as other children, then what circumstances exemplify the gray area in between? One is body mass index report cards, a well-meaning strategy for combating childhood obesity that some states require.[18] They cross the divide between a societal approach (ie, a state policy to screen all children of certain ages) and an individual approach because schools send children's weight status information home to parents, often with a recommendation for children with overweight or obesity to see their physicians. Experiences with body mass index report cards have been mixed. No policy is complete

without a full implementation plan, just as no screening program is complete without resources for downstream evaluations and intervention—and evidence of effectiveness. With body mass index report cards, some parents have been upset because they first hear of their children's weight status from the school rather than their physician; others cite invasion of privacy and stigma, especially when the children themselves are the ones bringing home the report card. Parents object less if they help develop the systems, if schools mail results instead of sending them home, if the reports have simple suggestions for intervention, or if the children's physicians are involved from the start.[19-21]

Once children and adolescents with obesity receive clinical care, therapeutic choices consist of behavioral approaches for most and bariatric surgical procedures for adolescents with severe obesity and comorbidities such as diabetes mellitus. Weight-loss medicines in this age group are not approved by the US Food and Drug Administration, and, to date, their use is very low.[22] According to a 2010 review,[23] intense multidisciplinary lifestyle programs with 26 hours or more of contact across 1 year can reduce age-associated gains in childhood body mass index (calculated as weight in kilograms divided by height in meters squared) by 1.9 to 3.3. However, long-term data on changes in weight status, much less clinical outcomes, are scarce, and many children do not have access to such programs. Owing to wider insurance coverage, access may improve with the declaration by the American Medical Association that obesity is a disease. This definition, however, comes with its own potential negative consequences. Labeling children and adolescents with obesity as having a disease could lead to overmedicalization of a condition whose determinants are largely societal, with subsequent overreliance on pharmaceutical and surgical approaches. In addition, calling obesity a disease may paradoxically lead to overeating.[24] Furthermore, while some believe that such labeling will decrease stigmatization, if obesity is like mental illness, it may actually increase it.[25]

Children and adolescents with obesity are both different and the same as other children. Attending to the tension between these 2 perspectives is important for implementing treatments that are effective and equitable. It requires their health care professionals to strike a delicate balance. Children with obesity face serious health risks. While we try to mitigate the risks with evidence-based therapies that are as personalized as possible, we must avoid making these children feel different from their peers in ways that are harmful.

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