

Home Environment and Children Obesity: What a Parent has to Do?

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Childhood obesity is rising almost universally [1,2], with an increased risk for developing chronic diseases such as type 2 diabetes, heart diseases and a variety of other co-morbidities, before or during early adulthood.

Overweight children enter adulthood with a raised risk of adult obesity, of up to 17-fold (after adjusting for parental obesity), and adult obesity in turn, carries an increased likelihood of metabolic and cardiovascular diseases, certain cancers and a range of other disorders, including psychiatric problems. Even if subsequent weight loss is achieved and maintained, there is evidence that mortality rates are higher among those adults who had been obese as adolescents [3].

The prevalence of overweight and obesity children is dramatically higher in economically developed regions, but is rising significantly in most part of the world [1,4].

The most recent data (2012) from the International Association for the Study of Obesity (IASO) [4], show that in the WHO Regions prevalence of overweight and obesity, respectively in boys and girls, is 1.9% and 2.6% in Africa's Regions, 27.3 % and 26.3% in America's Regions, 15.2% and 16.6% in the Eastern Mediterranean Regions, 22.1% and 20.3% in European Regions, 14.2% and 7.0% in South East Asian Regions, 17.7% and 12.7% in Western Pacific Regions.

Research examining precursors to overweight, among children, points to an interaction of genetic susceptibility and environmental influences. The extent to which each of these domains is related to the development of overweight among children is not sufficiently clear. Nevertheless, estimates from research studies suggest that 40% to 70% of body weight and shape are genetically determined, with the remaining 30% to 60% determined by the environment in which the person lives [5].

A child's environment is complex, including family, peers, school, community and the society at large, as filtered through media, advertising, and prevailing social norms [6].

Although the environmental influences are many and the levels of intervention required to prevent overweight in children extend from the child's immediate environment to the larger societal level, one critical intervention target is the parent.

The role of parenting is particularly critical for young children because parents directly determine the child's physical and social environment, and indirectly influence behaviors, habits and attitudes, through socialization processes and modeling. To the extent that overweight is a function of environment, parents of young children may play a significant role in the prevention of childhood overweight [6].

Psychological theory can be used to understand how the beliefs of children and family members may influence young children weight management behaviors [7].

Bandura's [8] Social cognitive theory proposes that behavior is a function of aspects of the person, as well as the environment, and that the primary drivers of behavior change include skills (e.g. ability to exercise more or control calorie intake), self-efficacy (belief in one's ability to perform specific actions, to achieve desired goals) and

outcome expectancies (belief that outcomes will come from specific behaviors).

Environmental factors that contribute to behavior change include support from others in the form of encouragement, modeling behavior, and access to resources. As such, parents can have a significant influence on child's behavior change.

A survey of American health professionals identified lack of parental involvement, lack of patient motivation, and lack of support services as key barriers to the management of childhood obesity [9].

Because parents are responsible for the physical and social environment of their children, they are indisputably the first line of prevention for youth obesity. Research about parental reinforcement and restriction of food and physical activity has revealed that parents must walk a "seven line", when trying to promote healthful lifestyle in their children [6,10,11].

Although parents cannot control all aspects of a child's day, they can moderate type and availability of foods, feeding practices, the frequency of television/video game usage, and access to physical activity opportunities. Parental modeling of both eating habits and physical activity also can help shape children's values, beliefs, and behaviors [12-14].

Recommendations for what parents can do to promote healthful eating and physical activity are suggested by Ritchie et al. [6], as following: 1. Provide children with ample access to nutrient-dense foods and beverages, and high-fiber foods, both at meals and snack time; 2. Reduce children's access to high-calorie, nutrient-poor beverages and foods, both at home and when eating away from home; 3. When nutrient-poor foods are available, avoid excessive restriction and use of food as a reward; 4. Encourage children to eat breakfast; 5. Work to find ways to increase fun and achievable physical activity in children; 6. Reduce children's television and video game time; 7. Model healthful eating and physical activity practices for children. Parents play a pivotal role in maintaining motivation by providing an environment, which promotes healthy eating and exercise habits [8].

It should be noted that none of these recommendations address child weight because weight is not a behavior, but rather a reflection of the interface between genetics and behavior. These recommendations focuses on behaviors related to healthful eating and activity habits that are suitable for all children, regardless of weight status.

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Also, health care and dietetics professionals play an important role towards parents [6]. They should inform, encourage and support parental efforts to promote healthful habits among their children, in order to prevent pediatric obesity. Professionals must also recognize that without the broader support of the community and change in the environmental influences outside of the family, it is inevitable that even some of the most well-meaning and best informed parents, will fail in their efforts to have their children adopt healthful lifestyle.

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