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Cameron Burr

Jordan Matekal

Samuel Heywood

John Paulson

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Cameron Burr, OMS I
KCU, Joplin, MO



Jordan Matekal, OMS I
KCU, Joplin, MO



Samuel Heywood, OMS I
KCU, Joplin, MO



John Paulson, DO, PhD, FAAFP
KCU, Joplin, MO
Department Chair, Primary Care

In 2011, Lindsey Murtagh and David Ludwig published a controversial article in the *Journal of the American Medical Association* detailing possible law changes involving childhood obesity. They argue that, while diet, exercise, and other societal influences put children at risk of becoming obese, parents need to take an equal portion of the blame. In their eyes, having excessive junk food in the home and failure to support a physically active lifestyle are defects in successful parenting.

Murtagh's and Ludwig's argument leaves readers with an important question. Given the factors of genetics, personal choice, advertising, and other forces on a child's health, what is the influence of parenting on a child's weight? How much responsibility should parents take for what has become a nationwide problem of epic proportions?

This article will explore three ways parental habits can have an influence on a child's weight. First, we will examine how parent's work schedules influence childhood obesity. Second, we will discuss how parent's cooking skills play a role in their child's weight. Third, we will review how parent's examples set the tone for their children's diet. Lastly, we will assess the physician's role in preventing childhood obesity using questionnaires and weight monitoring.

What is the Influence of Parents' Work Schedules on Children's Weight?

Today, more families than ever before have both parents in the workforce^{1,6,7,8,13}.

Mothers are typically viewed as those responsible to make meals for their children⁸. However, the increase in the number of families with both parents working means more mothers have entered the workforce^{1,2,12}. About 75% of American women with children between ages 6-17 are in the workforce¹. This has

created a new household dynamic in American homes – with more women entering the workforce, children do not have a parent in the home as often as previous generations have^{1,2}. This has also put a new stress on parents who must successfully balance professional and family lives. 86% of working mothers reported feeling stressed over trying to balance being a good employee and a good mother¹⁴.

In a study by Storf-Isser and Musher-Eizenmann²², working parents reported not having enough time to grocery shop, prepare, and clean up after meals. Working more hours per week positively correlated with children's consumption of packaged, processed foods⁵. More working hours also led to more meals eaten outside of the home at fast-food restaurants^{6,7,12,13}. Both factors – consuming prepackaged foods and eating at fast-food restaurants – have been shown to increase the prevalence of childhood obesity^{7,12}.

Increased working hours also lead to a decrease in the number of meals eaten together as a family. In a study by Fulkerson et al.,⁶ only 41% of families reported eating together more than five times a week. Family meals represent an excellent time for parents to monitor what their children eat and provide an example of healthy eating⁵. Research shows that the more family meals a child takes part in, the more likely they are to eat healthy foods and the less likely they are to drink sugary drinks and eat high fat foods^{6,13}. Thus, a decrease in family meal frequency due to work schedules can lead to a higher likelihood of childhood obesity⁵.

Working parents also frequently reported being too tired upon returning home to prepare healthy meals for their families^{7,12}. As a result, they stock their kitchens with easy to make, processed meals and snacks^{6,7,13}. Reported fatigue correlated positively with the amount of unhealthy food a child consumed¹³. Surveys show

that parents feel hesitant to give their children prepackaged foods because they know they are not nutritious, but the time-saving and easy cleanup aspects of these foods often outweigh their hesitation. Obviously, the increased consumption of non-nutritious meals leads to a higher prevalence of obesity^{5,7,9,12,13}.

What is the Influence of Parents' Cooking Skills on Children's Weight?

To maintain a healthy weight, children should be eating a variety of vegetables, fruits, whole grains, and lean protein. They should also avoid sugar, solid fats, and excess sodium⁴. Because over 70% of a child's daily calories are consumed within the home, it is of vital importance that healthy foods are readily available in the home. Studies have shown that children are more likely to eat healthy if nutritious food is readily available^{5,6,7,9,12,13}.

Studies by Horning et al.⁷ and Martin et al.⁹ show that healthy food is less likely to be available to children in the home if their parents do not know how to prepare it. Fulkerson et al.⁶ concluded that only 34% of American families give their child a vegetable for their evening meal every day. Findings also suggest that the lower a parent's cooking abilities, the higher the prevalence of ultra-processed foods there are in the home^{7,9}. Pre-packaged and processed foods offer an easy alternative to parents who have low cooking self-efficacy – they are readily available, require little time and energy, are easy to clean up, and are relatively inexpensive. However, they contain high amounts of sugar, sodium, and fat^{7,9}.

These findings suggest that increasing cooking skills could be an effective prevention method against childhood and adolescent obesity^{7,9}. The development of cooking skills and effective meal planning strategies could drastically increase the amounts of healthy foods available to children in the home^{6,10}.

What is the Influence of Parents' Example on Children's Weight?

Parental modeling of fruit, vegetable, and other healthy food intake is key in the development of children's eating habits^{5,6,12}. Parents serve as the ultimate models for eating – if they do not eat a certain food, it is unlikely that their children will¹².

A study by Eck et al.⁵ found that the main reason children consume sugar-sweetened beverages, the leading cause of added sugar in the American diet, is because their parents do. Children learn eating habits by observation⁶ and have been shown to drink more sugar-sweetened beverages if they are readily available in the home⁵. Parents reported recognizing that their children want to drink what they drink but say limiting sugar-sweetened beverages can be difficult because they enjoy drinking them⁵. When a group of children was surveyed, their number one suggestion for how to limit their consumption of sugar-sweetened beverages was to tell their parents not to drink soda⁵.

Parents also establish the environment their children eat in. If children are exposed to new fruits and vegetables in an

environment in which they feel positive emotions, they are more likely to eat them again. However, they will avoid foods that were presented to them at a time they were experiencing negative emotions^{5,12}. Further, when parents spend more time eating with their children, the amount of healthy food consumed has been shown to increase. When parents eat quickly to get to their next task, healthy food consumption decreases⁵.

What is the Physician's Role in Childhood Obesity Prevention?

The primary way physicians can help prevent and treat childhood obesity is by screening and monitoring a child's height and weight through routine visits¹³. Starting at two years old, physicians should begin discussing healthy weights and body mass indexes with a child and their parents³. Physicians should counsel with parents about the importance of obesity prevention and treatment in the home – such as limiting sugary and fatty foods and increasing activity levels¹¹.

In addition, physicians can offer waiting room questionnaires to help parents evaluate the health of their diet and the eating habits of their children. Questions can assess a child's eating behaviors and activity levels, as well as how parents feel about food preparation, their schedule, the environment they provide for their child, and how ready they are to make changes to promote a healthy weight¹¹. Physicians can help motivate parents, set goals, and follow up with them in subsequent visits¹¹. Physicians should develop strong communication skills and understand that conversations and questionnaires about children's weight may be uncomfortable, but they have been proven to help children maintain a healthy BMI¹³.

Conclusion

Research shows that, as hypothesized by Murtagh and Ludwig, parental habits have a profound impact on a child's weight and likelihood of becoming obese. Specifically, data supports that parents working more hours per week increased children's consumption of unhealthy foods^{7,9,12,13}. Studies also show that if parents do not know how to prepare nutritious foods, then they are less likely to be found in the home, thus increasing the amount of sugary and fatty food consumed by children^{6,7,9}. Research also supports that children learn eating habits through parental modeling, and they are less likely to eat unhealthy foods if their parents also avoid them^{5,6,12}.

To promote a healthy weight and combat the childhood obesity epidemic, it is paramount that parents and physicians work together. Physicians should provide parents with opportunities for honest assessments of their own habits and those of their children^{13,11}. Parents must remain open to adjusting their work schedules, improving their cooking skills, and changing their dietary habits to endorse healthy weights. The combination of these factors could alter the future of the childhood obesity epidemic.

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