

Obesity and Hispanic Children: the Influence of Culture on Obesity

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Abstract:

In the United States, obesity has become a serious public health concern; it affects children of all ages. Obesity has become a focus of public health because it creates a burden for society as people are facing more health problems, which increases healthcare costs. There are many factors that contribute to obesity; one of the factors playing a great role in Hispanic childhood obesity is culture. In order to get the maximum outcome when trying to address health inequalities, the ultimate approach is introducing policies that will eliminate or reduce the factors that contribute or cause the disparity. In order to decrease childhood obesity in Hispanics, there should be an understanding on how culture influences diet.

Keywords: Childhood Obesity, Health Disparity, Hispanic Childhood Obesity, Obesity

1. Introduction

In the United States, obesity has become a serious public health concern; it affects children of all ages. Over the past thirty years, obesity rates among children have doubled. The highest prevalence is found among African American, Hispanic, and Native American children. Being overweight places children at risk for chronic diseases like hypertension, diabetes, high cholesterol, and joint pain. In addition, these conditions are likely to persist into adulthood and can be more severe. Obesity also poses a considerable financial threat to society because obese individuals tend to have multiple health problems that are costly to care for. Obesity may cause people to become disabled, resulting in their inability to work. This epidemic has become a focus of public health because it creates a burden for society as people are facing more health problems, which increases healthcare costs. There are many factors that contribute to obesity, one of the factors playing a great role in Hispanic childhood obesity is culture. Cultural identification influences the food choice, preparation style, and parents' attitude towards bodyweight and health (Sealy, 2010).

Culture and ethnicity influence food choices and consumption in Hispanic homes, as well as the socio-economic status of the family (Gualdi-Russo et al., 2012). In Hispanic cultures, some believe that being overweight is a sign of good health and being well nourished. Therefore; parents are sometimes pressured by family members and cultural practices to endorse a chubby

child. Culture is a significantly important contributing factor in Hispanic obese children (Gesell et al., 2010).

2. Definition of obesity

Obesity and overweight in adults are defined in terms of body mass index (BMI). In turn, BMI is defined as weight in kilograms divided by height in meters squared (kg/m2). In addition, according to guidelines published by the National Institutes of Health, an adult is considered underweight if his or her BMI is less than 18.5, overweight if BMI is 25 or more, and obese if BMI is 30 or more (Anderson & Butcher, 2006). According to the Centers of Disease Control and Prevention (CDC), overweight in children is defined as a body mass index (BMI) of greater than 85th percentile and smaller than 95th percentile (Branseum & Sharma, 2011). Obesity in children is considered a BMI at or above the 95th percentile of age and sex specific reference growth curve. Obesity in children and adolescents does not use exact numbers like that of adults, it is expressed by percentiles. The use of BMI to assess childhood obesity is more contentious because children are growing, the connection between adiposity, or "true fatness," and the ratio of their weight to their height may be weaker than that of adults (Anderson & Butcher, 2006).

In terms of energy intake, weight is gained when energy intake exceeds energy expenditure. According to studies, individuals consuming fast-food meals have higher energy intake with lower nutritional values than those not consuming fast food. However, this finding does not guarantee that children consuming more fast food will be more likely to become overweight. Another source of energy is sweet beverages, primarily soft drinks but also juice. According to several studies, a positive link between being overweight and soft drink consumption has been established. Moreover, Anderson argues that children who eat foods that are empty in calories and expend fewer calories through physical activity are more likely to become obese as compared to other children (Anderson & Butcher, 2006).

According to the US Census Bureau, Hispanics or Latinos are people whose origins are from Dominican Republic, Spain, and the Spanish-speaking countries of Central or South America. The term Hispanic refers to an ethnicity made up of descendants from over twenty-five Spanish speaking countries including Cuba, Mexico, Central and South America, and Puerto Rico.⁵Currently, Hispanic Americans are the largest minority group in the U.S. They comprise 15% of the U.S. population (Branseum & Sharma, 2011).

3. Statistical overview

Comparing international obesity trends using BMI is complex because the relationships between "true fatness", height, and weight may differ for people in diverse environments. However, literatures examining specific populations have concluded that obesity is increasing worldwide (Anderson & Butcher, 2006). Therefore; it is not a problem only in the United States.

Over the past thirty years, obesity rates in the United States have increased for all age groups. In 1971-1973, the percentage of the U.S population that was obese for all adults was 14%. Between 1999 and 2002, the percentage had reached thirty percent. According to a report that evaluated the impact of obesity-policy legislation, two-thirds of American adults are either overweight or obese. (Anderson PM & Butcher KF, 2006) In addition, it revealed that adult obesity rates increased in twenty three states, and there were no decreases in any state in the country (Sealy, 2010). When compared to children, the share of adults defined as obese was larger than that of children in any given period. The rates of obesity increased for both men and women. However, women had higher rates than men.

Childhood obesity rates have been increasing at an alarming rate over the past decades. Between 1971 and 1974 about 5% of children aged two to nineteen years were obese. By 1980 the portion of the obese population categorized by this age group was faintly higher, but between 1980 and 1994 the share of obesity for this group approximately doubled. By 2002 nearly 15% of U.S. children were considered obese (Anderson & Butcher, 2006). When compared with 27% of non-Latino children, 36% of Latino children aged 2-5 were considered obese or overweight in 2004. Increases in obesity and overweight are at the highest rate among low- and middle-income preschool children. In addition, among middle-income preschool children, the highest relative growth in obesity prevalence over a twenty two-year period was observed among Latinos, a 129% increase, from 7.2% to 16.5%, compared with relative growths of 32% in white and 36% in black children (Lindsay, 2011). According to data from the National Health and Nutrition Examination Survey (NHANES) from 2003-2006, the obesity prevalence was 12.4% for children 2-5 year olds, 17.0% for 6-11 year olds, and 17.6% for adolescents 12-19 year-olds.¹ The rates have increased respectively from 5.0%, 6.5%, and 5.0% during 1976 to 1980.

According to NHANES survey periods 1988–1994 and 2003–2006, the rates for African American adolescent boys increased from 10.7% to 22.9%. For Hispanic adolescent males, data showed a 7% increase from 14.1% to 21.1%. On the other hand, White adolescent boys had a 4.4% increase with prevalence increasing from 11.6% to 16.0%. Moreover, adolescent girls had similar findings. African American girls had the highest prevalence of obesity at 27.7%, followed by Hispanic Americans at 19.9%, and White Americans at 14.5%. As noted by Gesell, "Latinos of all ages are disproportionately affected by overweight; with up to 27% of Latino children have body mass indexes (BMIs) \geq 95th percentile." (Anderson & Butcher, 2006; Gesell, 2010, p.323). An explanation for the difference could be the differences in energy intake and energy expenditure amongst Latinos. In addition, she argues that a cultural element is likely affecting the perception of obesity and its related health consequences.

The percentage of obese children is at or above 30% in 30 states in the U.S. Comprehensibly, an increase in childhood obesity is associated to increasing adult obesity.²According to studies, it is more likely for obese children to become obese adults as compared to normal weight children. (Anderson Butcher, 2010). Moreover, it's argued that obesity at very young age is also associated with adult obesity. A study in the 1990s demonstrated that 52% of children who are obese between the ages of three and six are obese at age twenty-five as against only 12% of normal and underweight three to six-year-old children. According to studies, 26% to 41% adults who are overweight were obese in preschool and 42% to 63% were obese in elementary school (Gesell et al., 2010).

While the obese portion of the population is expected to increase with age, obesity today is increasing with age at an alarming rate. It is increasing more than it did thirty years ago. For instance, in 1971, researchers tried to predict the share of ten-year olds who would be obese by the time they turned forty in 2001. The share was predicted to be between 10 and 15 percent. However, in 1999-2002, the share was close to 30%. Moreover, the likelihood of childhood obesity persevering into adulthood is projected to increase from 20% at four years of age to approximately 80% by adolescence. The percentage is increasing when one or both parents are also overweight. According to J. M. Jakicic, director of the Physical Activity and Weight Management Research Center at the University of Pittsburgh, failing to address the current trend will result in 70% of children and adolescents being categorized as obese by the year 2100 (Anderson & Bucher, 2006; James, 2008).

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4. Behavioral Factors: Diet, Physical, and Sedentary Activity

According to research, a diet rich in fat, sugar and low on fruits and vegetables is one of the leading causes of childhood obesity. In a study examining factors influencing food intake of Hispanic children, it was found that the diet of Mexican-American children was high in fat, and low in fruits and vegetables. Moreover, analyses of NHANES III data disclosed that Mexican-American girls aged six to nine consumed 34.1% of their energy from fat as compared to boys who consumed 34.7%. Correspondingly, in the Child and Adolescent Trial for Cardiovascular Health (CATCH) study, data showed that the fat intake of Mexican-American children tended to be greater than those of African-American or non–Hispanic white children (Matheson, 2008).

Children eating high caloric foods are a concern for many parents. According to a father, "trying to eat low-fat food, fruits, and vegetables was difficult because Latinos are not used to these types of foods."(Snethen et al., 2007, p.368). In addition, children are being given sweets to reward them or to please them. For instance, a mother explains that she uses food as a source of gratification. She says, "I like to see my children happy, so I like to let them eat what they want."(Kaufman & Karpati, 2007, p.2185) Feeding is a symbol of nurturing and achievement; it is a symbol of good parenting especially in the Hispanic community. In the context of gratifying children, "eating right" means satisfying the wants and needs of children. This practice usually involves unhealthy food options and overeating (Snethen et al, 2007).

Some of the factors found to be associated with lack of physical activity in children include: time, transportation, sedentary activities, safety, cost, and racism. Changes in the built environment have led children to travel more in cars; children are now less likely to walk to school than they were in the 1970's. Children have reported that they don't have the time to get involved in sports and after school programs that are available because they are too busy with homework. In addition, their parents don't have the time to take them to the park or transport them to activities. Parents are mostly at work and when they are home, children are usually in school (Snethen et al., 2007).

5. Cultural contributor

Food preparations among Hispanics often involve cooking with large quantities of fat, sugar, sodium, and fried foods.¹ Parents' culture and ethnicity have a great influence on the type of food they prepare at home and what their children are used to. In addition, parents who don't like or were not raised eating certain types of food, like vegetables, influenced children's diets(Sealy, 2010).

Family attitudes and interactions surrounding food also influence children's eating behaviors. Although family income has direct implications on food mother's purchase, it is not the only determinant of food purchase decisions. For instance, in a study of food choice criteria of Mexican-American mothers of preschool-aged children, results revealed that mothers who rated the healthfulness of food as being important in their food choices had children who consumed less energy from fat and sugar, and more fiber and Vitamin A. Children whose mothers rated taste most important in their food purchase selections. Parents' monitoring of food intake of their children also affects their energy intake (Matheson, 2008).

Greater acculturation is found to be associated with less healthy diets. Acculturation, the process of cultural transition and assimilation, is connected to the length of time a family has lived in the country they migrated to. This process is found to be higher in Hispanics (Evans, 2011). According to studies, acculturation of Hispanic children into a Westernized lifestyle has been a substantial factor in changing children's diets that comprise higher calories and saturated fat

(Setevens, 2010). Globalization and acculturation have the opportunity to simultaneously promote cultural change (Caprio, 2008). Obesity is one of the public health consequences of globalization because it opens a door for the intensification of the condition. People start eating new and popular foods; they are being exposed to things that intensify their risk to certain illness and diseases.

6. Social contributor

The socio-economic status of families' influences their access to healthy foods and their means to purchase them. The cost of food has increased in the past years, and that makes it harder for families to afford quality foods. Low-income and middle-income families must manage a budget that only allows some essential resources. Having the resources to buy expendable items like fruits and vegetables is very unlikely. Socio-economic status (SES) plays a role in obesity because it determines the social gradient and the social position that people are in. SES is linked to poor diets because it determines the conditions that people live in, the type of work they do, the number of hours or jobs they work, access to healthy foods in their neighborhoods (Grier, Kumanyika, 2008), and being able to afford healthy items like fresh fruits and vegetables. According to Grier, marketing of high-calorie foods, which may contribute to obesity, targets ethnic minority populations. A factor influencing obesity in the Hispanic community is the availability of unhealthy foods in the neighborhoods they live in; there is not much choice for healthy food selection (Link & Phelan, 2005).

Link and Phelan discussed the social conditions that affect health. The article shows how a lack of resources influence health negatively because it impacts individual behaviors, environmental exposures, work/income, and other factors that may affect health. In addition, access to resources can influence behavior change, access to information, better healthcare, access to healthy food selection, occupations, and social networks that may contribute to social support. Access to socioeconomic resources can play an important role in dealing and lowering the prevalence of obesity (Link & Phelan, 2005).

Food insecurity influences food choices of Hispanic families. Food insecurity is defined as "the ability to acquire nutritionally adequate, personally acceptable and safe foods in socially acceptable ways. Families who are food insecure are hypothesized to lack the resources to purchase adequate and acceptable food."(Matheson, 2008, p.8). According to a food security assessment, the survey indicated that of the Hispanic respondents, 59% of Hispanic children were food insecure. Moreover, a needs assessment of minority parents reveals that Hispanic women (n=550) rated high food prices (57%) and not enough funds for food (44%) as the most important factors influencing their food choices. Another barrier mentioned by the sample (22%) is the lack of nutritional guidance (Matheson, 2008).

The current economic crisis also plays a role in the time parents have to prepare healthy foods. Parents of low-economy status have to worry about employment and health care. They tend to work long hours, which in turn influences the type of meals they can prepare. Time constraints are important because it has an impact on the food parents and children consume. Parents have limited time to shop and cook healthy meals because they tend to work long hours, evening shifts, or more than one job. In addition, the strain of multiple roles tends to cause parents to rely on energy-dense foods with lower nutritional values (Sealy, 2010).

7. Intervention aimed at the family

In order to lower the prevalence of childhood obesity in Hispanics, there needs to be health education aimed at the family as a whole. Cultural beliefs, social support networks, and social pressures influence mothers' beliefs/perceptions about child weight status and feeding practices (Lindsay et al., 2010). Culturally appropriate interventions should provide parents with information on why healthy eating practices are important and what the risks of childhood obesity are. They should guide parents to adopt healthy feeding practices and to model healthful eating in order to prevent childhood obesity. For instance, studies show that interventions aimed at parental involvement and support through encouragement, modeling of positive nutritional patterns, and physical activity is a substantial determinant in healthy behaviors in middle-aged children.¹¹A computer-tailored intervention found that parents provide greater support after receiving the same intervention as their children. After one year, girl participants had a decreased fat intake and higher levels of physical activity, however, after two years; there were no differences with or without parental support (Stevens, 2010).

In a different study, parents participated in two educational meetings and received information on healthy eating, obesity prevention, and national food-based guidelines. They testified to greater involvement and more positive changes in their children's health behaviors in the smaller city schools (90%) as compared to larger cities (50%).(Lindsay AC et al., 2011) A number of parents have also reported integrating aspects of the educational program into their daily lifestyles. The role of parents is central in affecting dietary behaviors and reducing childhood obesity. Studies have shown that social support from family members influences health behaviors in children by offering models and resources for lifestyle change (Stevens, 2010).

8. Intervention aimed at the individual

Physical activity and sedentary behaviors are closely connected to childhood obesity. Behavioral strategies aimed at teaching children how to eat healthy and exercise regularly are successful at helping children to develop and improve self-efficacy skills, to believe that they can perform such behaviors and achieve goals that they set (Stevens, 2010). Interventions that include nutritional education in their health curricula showed improved dietary choices and increased intake of fruits and vegetables. In addition, interventions that provide children with the opportunity to participate in moderate to vigorous physical activity allow them to develop higher levels of self-esteem because they set goals that they are able to attain.

For instance, in one study, the children completed self-assessments of activity/inactivity levels, and identified areas where they need improvement. Goals for reducing periods of inactivity were incorporated into the lesson plans, which allowed the children to make choices. It's argued that when children have control over choices, their self-efficacy improves. The curriculum also emphasizes why it is important to take action. This emphasis may have resulted in greater positive result expectations that further encouraged the children to reach their goals (Sealy, 2010).

9. Policies

In order to get the maximum outcome when trying to address health inequalities, the ultimate approach is introducing policies that will eliminate or reduce the factors that contribute or cause the disparity. Contextual based approaches would reduce the overall rate of obesity because the intervention is aimed at the population as a whole. Policies that benefit all people in a context unrelatedly to their behaviors (i.e. choosing to buy empty caloric foods) provide the best opportunity for reducing health disparities (link & Phelan, 2005).

In an effort to combat childhood obesity and other health problems, NYC Mayor Michael Bloomberg and NYC Board of Health introduced an initiative known as the portion cap, or "soda ban" as it became popularly known. The Mayor proposed a citywide ban on servings of sugary

beverages in containers larger than 16 ounces (475 ml), which was due to take effect on March 12, 2013. However, a last-minute decision cut off the plan when a state judge ruled that the portion cap for such drinks was both "arbitrary and capricious."(Lancet, 2013; p. 9). In an attempt to further the fight on obesity, in 2010, Mayor Michael Bloomberg and Gov. David Paterson attempted to ban food stamp purchases of sugary drinks like soda. The Governor argued that the use of food stamps to purchase sugary drinks contradicts the intent of this vital program and also subsidizes a serious public health epidemic (Silverman, 2005). This initiative was also unsuccessful.

These initiatives had the potential of helping the population as a whole. It's approaching the problem at the upstream level, which is directed at the fundamental causes of poor health and inequalities. These policies would benefit the population in the long run because tackling the problem from downstream tends to offer short-term benefits.

10. Conclusion

Childhood obesity is increasing at an alarming rate. One of the factors playing a great role on Hispanic childhood obesity is culture. Cultural identification influences the food choices, preparation styles, and parents' attitudes towards bodyweight and health. Childhood obesity is a major concern of public health because children who are obese and overweight are at risk of developing health problems normally seen in adults. Hispanic children are one of the groups with highest prevalence rate of obesity, and the numbers are increasing at an alarming rate. While there are many factors that contribute to childhood obesity, one of the most significant factors in the Hispanic community is culture. It influences food choices at home, beliefs and perceptions of bodyweight, and health status.

In order to decrease childhood obesity in Hispanics, there should be an understanding on how culture influences diet. Moreover, there is a need for culturally appropriate interventions aimed at the family as a whole because family and cultural beliefs play a great role in parental decisions. Policies are fundamental in combating obesity because they attack the problem at the upstream level.

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