

IS OBESITY PART OF ACCULTURATION?

Examining obesity rates in immigrant Hispanic children

Introduction

America is known as the land of opportunity, a place where dreams can come true, a place in which one can earn a better life. But does being immersed into the American culture also mean being subject to the potentially negative health effects that come with this society? With approximately 189 million immigrants living in the United States, the numbers of first and second generation immigrants are quickly rising, meaning more and more people are adopting American habits and customs in the realms of health, eating, and exercise (1). Studies report that almost 60% of all Hispanic-American children are first or second generation immigrants, which presents with it such challenges as language barriers, acculturation, low socioeconomic status (SES), and as a result of these risk factors, decreased health (1). While there is a “healthy migrant effect”, in which immigrants come to the host country healthier than their native-born counterparts, in immigrant populations with low SES, this paradoxical advantage is reduced the longer one lives in the U.S. (3) For first and second generation immigrant children growing up in the United States, becoming influenced by American society and behavioral norms of eating heavily processed, unhealthy foods and leading a sedentary lifestyle, is made easier by the examples of their American-born peers.

A reason why looking into adolescent obesity is

so important is due to the fact that this alone is a strong risk factor for adult-onset obesity, heart disease, and stroke (4). Not only does adolescent obesity present both health and social risks for teens, but there are economic consequences, both for the individual and the healthcare system, due to increased health expenses. According to the CDC, in the United States., adolescent obesity rates have more than quadrupled in the past 30 years and are on an increased trajectory. In 2012, more than one third of all American children and adolescents were overweight or obese.

When only looking at first and second generation Hispanic children and teens, their rates of obesity increase the longer they live in U.S., through the process of acculturating to American values and dietary habits. Obesity in Hispanic and Mexican-American children is linked with being “more American” and examining how acculturation plays a role in developing childhood and adolescent obesity can lead a solution for this pressing health issue (3). With an ever-growing immigrant Hispanic population, it is crucial to examine their patterns of physical activity, sedentary behaviors, and dietary habits to understand why so many are becoming obese after moving to America.

Health profiles of immigrant Hispanics

Hispanics cannot be grouped into one main

category so when examining their risk factors, there is a large differentiation between foreign-born and US-born Hispanics. In line with the healthy migrant effect, most immigrant Hispanics are healthier before coming to America. The diets of foreign-born Hispanics tend to be more nutritious and healthier than their U.S.-born counterparts (3). Reasons for this difference in diet are due to such factors as income, education, and city of residence. Since many of the immigrant Hispanic families work in highly-demanding, low-paying jobs, their level of SES is low. With a lower socioeconomic status comes the easier and more economical choice of eating energy-dense, fatty foods that are less expensive than healthier, fresh food options (2).

Another major determinant for obesity rates is where an immigrant settles down. Most Hispanic immigrants end up working in densely-urban or rural areas, which both come with environmental and social factors that lend themselves to making the unhealthy options the easiest. Going to fast food restaurants and having low levels of physical activity are common for people of low SES backgrounds in these environments. Evidence has shown that there is a difference in physical activity levels between immigrants and the US-born population with the same level of SES. In addition to the effects of acculturation on levels of physical inactivity, a lack of safe parks and places for children to play also leave immigrant children and adolescents with almost no option but to conform to America's unhealthy lifestyle.

Female Hispanic children, specifically first and second generation immigrants, are more at risk of developing Type II diabetes after their families move to the U.S. Data collected from the National Health Interview Survey found that to begin with, the average BMI of foreign-born Hispanic women is two percentage points lower

than American women, foreign-born men having a BMI five percentage points lower (1). Once moving long-term to America, the survey showed that immigrant females' BMIs began to converge with the higher, but average American BMI for women after less than 10 years of living in the U.S. (1) A healthy diet and exercise have been shown to be preventative measures against Type II diabetes and ensuring that Hispanic children have access to healthier foods and means of physical activity are most important when combatting acculturated obesity.

Physical Inactivity

Since physical activity is an important component of preventing obesity, one study looked at levels of physical inactivity and sedentary behaviors among different groups of immigrant children and adolescents living in the United States. Using a telephone survey, the 2003 National Survey of Children's Health, researchers discovered that Hispanic immigrants had the lowest levels of physical activity of any U.S.-born or immigrant population. Of Hispanic children living with both immigrant parents, 22.5% were physically inactive, as compared with 9.5% of US-born children (5). 66.9% of immigrant Hispanic children did not participate in an after-school sport, compared to 30.2% of US-born Asian children (5).

One of the main determinants of physical inactivity is income level. In this study, 35% of the immigrant children living with both parents lived below the federal poverty line, as opposed to 14.7% of US-born children. Income level is negatively correlated with safety of the community in which one lives, the ability of parents to pay for their children to play sports, the number of safe parks nearby, and the amount

of leisure time one has to exercise. Low-income immigrants, in this case Hispanics, do not have the time to spend taking their children to the gym or parks and as a result, do not teach the importance of physical activity to their children. Moreover, some immigrant parents may discourage their children from participating in sports leagues for fear of their children being bullied, due to linguistic barriers between the coaches and their children, or due to the parent's current employment status (5). Immigrant parent's own level of physical activity also affects whether their children will be active, as they serve as role models for healthy and unhealthy behaviors.

Dietary Habits

Countless research has been done showing the positive correlation between acculturation and increased risks for obesity and diabetes-related risk factors and behaviors, particularly in the realm of one's diet (4). The amount of consumption of fast food and how many hours immigrant children and teens watch television or sit in front of a computer quickly begins to match U.S. levels of these activities in native-born children. One study focused on exploring the mechanisms that explain the differences in obesity across different generations of immigrant Mexican, Puerto Rican, and Cuban children in the United States (1). Cardiovascular disease and obesity rates were shown to be higher amongst U.S.-born children and Hispanics, particularly Mexican-American children who were more acculturated and had been in the U.S. longer.

The results of the study showed that U.S.-born immigrants were more overweight than foreign-born immigrants, although there was an exception with Mexicans who were similarly overweight across all generations. First generation Mexicans

reported lower intake of cheese and fast foods and a greater intake of beans, fruits, and vegetables. (1) Foreign-born adolescent Puerto Ricans and Cubans had higher intakes of fruits and vegetables than did foreign-born Mexicans.

Controlling for economic differences, US-born adolescents were shown to intake more fat into their diets than foreign-born adolescents, resulting in more overweight status and obesity in U.S.-born children and teenagers of immigrants (2). The study found a significant relationship between the number of years of living in America with obesity in Mexicans. The opposite was shown for Puerto Ricans and Cubans, who actually became less overweight the more they were acculturated. However, they found that those foreign-born and U.S.-born children who watched the most television had the worst dietary practices, as a result of American acculturation not only to levels of sedentary behavior and dietary habits, but as a result of the television commercials viewed on children's programming that contained advertisements for fast foods (2). Acculturation into American society was a major determinant in overweight status, as the overall greatest differences in obesity levels were seen only for foreign-born immigrants.

Policy Implications

Targeting adolescent obesity in first and second-generation immigrants would need to involve a three-pronged approach. When targeting different immigrant groups, it is also crucial to study them in their individual ethnic and cultural subgroups, as targeting them homogeneously does not allow for their specific needs and risk factors to be met.

The first approach would be to target children's nutrition from as early an age as possible.

Repeated studies have shown that how one eats in their childhood greatly affects their dietary preferences and habits in adulthood (5). Low-income status is one of the major deterrents from families purchasing and eating healthy foods. Programs providing low-income immigrant children with healthy breakfast and lunches through their elementary schools would ensure that these children are able to eat healthily for two of their three daily meals. Not only would providing healthy food through school lunch programs be important, but making sure that immigrant children who qualify apply for such programs as WIC (Women, Infants, Children) and other federal and state food assistance programs to receive the benefits they deserve. Many immigrant families do not enroll in such programs for fear of deportation but by creating a policy to promote the benefit of these programs specifically to target immigrant populations, more immigrants would be able to purchase fresh fruits and vegetables. Having volunteers at grocery stores and neighborhood markets spreading the word about these food assistance programs to low-income, immigrant families could provide healthier food options for their children.

The second approach would be to target the sedentary lifestyle that so many of America's youth struggle with. With more and more technologies being used by children, there is less of a desire to play outside and exercise. An issue for immigrant families in particular is fear or lack of knowledge of after-school sports programs. By bringing in and spreading awareness of recreational sports in areas heavily populated by Hispanic immigrants, parents would be encouraged to enroll their children in sports leagues. Programs such as the Boys and Girls Club of America already have physical fitness activities after school for low-income children who attend their facility. Increasing federal funding to these

physical activity programs would increase their use and influence in the community. Instilling the importance and pleasure of exercising in first and second generation Hispanic children from a young age will likely promote physical activity throughout their entire lives, which they can then model for the generation to come.

The third approach to prevent American culture from promoting obesity is to create a policy that limits the number of junk and fast food advertisements allowed on children's television programming. Children are very susceptible to being influenced by media and advertising and by viewing these commercials for sugary snacks and beverages, they will crave and prefer to eat these types of foods. By limiting junk food advertising and promoting increased advertisement of fruits and vegetables, immigrant children, as well as all U.S. adolescents, will learn the importance of eating healthily.

Promoting nutrition and physical activity early on in adolescence is critical in shaping American society around healthy living. By doing so, we change the acculturation process for immigrant children and create an environment that encourages the consumption of fresh, healthy foods and the practice of daily exercise. If these policies are successful, obesity will no longer be a part of immigrating to America and migrants will instead be integrated into a society in which healthy behaviors are the norm.

References

1. Gordon-Larsen, Penny, et al. "Acculturation and overweight-related behaviors among Hispanic immigrants to the US: the National Longitudinal Study of Adolescent Health." *Social science & medicine* 57.11 (2003): 2023-2034.

2. Neuhouser, Marian L., et al. "Higher fat intake and lower fruit and vegetables intakes are associated with greater acculturation among Mexicans living in Washington State." *Journal of the American Dietetic Association* 104.1 (2004): 51-57.
3. Kennedy, Steven, James Ted McDonald, and Nicholas Biddle. "The healthy immigrant effect and immigrant selection: evidence from four countries." (2006).
4. Popkin, Barry M., and J. Richard Udry. "Adolescent obesity increases significantly in second and third generation US immigrants: the National Longitudinal Study of Adolescent Health." *The Journal of Nutrition* 128.4 (1998): 701-706.
5. Singh, Gopal K., et al. "High levels of physical inactivity and sedentary behaviors among US immigrant children and adolescents." *Archives of Pediatrics & Adolescent Medicine* 162.8 (2008): 756-763.

Further Reading

1. Dixon, Lori Beth, Jan Sundquist, and Marilyn Winkleby. "Differences in energy, nutrient, and food intakes in a US sample of Mexican-American women and men: findings from the Third National Health and Nutrition Examination Survey, 1988-1994." *American Journal of Epidemiology* 152.6 (2000): 548-557.
2. Goel, Mita Sanghavi, et al. "Obesity among US immigrant subgroups by duration of residence." *Jama* 292.23 (2004): 2860-2867.
3. Kaplan, Mark S., et al. "The association between length of residence and obesity among Hispanic immigrants." *American journal of preventive medicine* 27.4 (2004): 323-326.
4. Perrerrira, Krista, and India Ornelas. "The Physical and Psychological Well-Being of

Immigrant Children." - *The Future of Children* -. Princeton University, 2011. Web.

5. Sundquist, Jan, and Marilyn Winkleby. "Country of birth, acculturation status and abdominal obesity in a national sample of Mexican-American women and men." *International Journal of Epidemiology* 29.3 (2000): 470-477.