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Leadership in food policy: raising a foodie part II

Ashlyn Cook*, Amy Moorehead[†], and Kelly A. Way[§]

ABSTRACT

Obesity is experiencing a problematic rise in America. Children develop habits that potentially last a lifetime, which also dictate their medical fate. The focus of this study was to identify and decrease the factors of childhood obesity through education, healthy eating, and changes in food choices through surveys administered by the researchers. Previous research has linked obesity to the diagnosis of type 2 diabetes and chronic diseases in children through decreased physical activity and poor diet due to the lack of essential nutrition knowledge. Other factors contributing to childhood obesity include poor food preparation/creation, deceptive advertising, cultural habits, and an increased demand for fast and convenience foods; leaving children's recognition and desire for healthy food choices clouded. The purpose of this study was to discover the factors contributing to childhood obesity in the Hispanic culture. Therefore, childhood obesity factors were explored that related to and specifically linked food purchases, childhood activities, and eating patterns. The study took place with a prevalently Hispanic population within Springdale, Arkansas. The findings indicated that price, as well as nutrition and taste, were major factors when purchasing food. In addition, what a child ate, the amount of food the child ate, what the child weighed, and if the child participated in some form of exercise were determined to be factors contributing to childhood obesity.

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MEET THE STUDENT-AUTHORS



Ashlyn Cook

I was born and raised in Jefferson City, Missouri, but now call Northwest Arkansas home. I graduated in May 2015 from the University of Arkansas with a B.S. in Human Environmental Sciences, majoring in Human Nutrition and Hospitality Innovation, with a concentration in Hospitality Innovation and a minor in Spanish. To broaden my knowledge, I participated in a one-month intensive language-study program in Spanish composition and culture in Madrid, Spain during the summer of 2013. I have been a member of the Hospitality Club, as well as the AFLS Honor's Program, Mortar Board National Honor Society and the Order of Omega Honor Society. During my senior year, I interned at the Razorback Foundation and was an active member of Kappa Kappa Gamma sorority, where I served as Vice President of Academic Excellence. I have enjoyed being involved in multiple organizations on campus, as well as volunteering throughout the community. Faith, family and friends are the three most important parts of my life. I enjoy music, writing, the outdoors and investing time in others.

I would like to thank Dr. Kelly Way who has given an immense amount of time to guide, teach and mentor Amy and me this past year. She gave both Amy and I the motivation and confidence to complete our thesis with enthusiasm and positivity.

I was born and raised in Little Rock, Arkansas where I grew up spending most of my time outdoors, traveling and playing soccer. I have always been a big Razorback fan, and when I visited the school, it was like fitting the final pieces of my puzzle together. I was drawn to the Hospitality program and what the University had to offer. I immediately began taking classes and diving into this incredible experience freshmen year. After getting the opportunity to study abroad in Spain the summer before my junior year, I knew I needed to tackle Spanish as my second major, and I truly fell in love with the language. I also began my experience during my junior year working for the catering and events company on campus known as Chartwell's where I have learned many fundamental skills and traits that I plan to take into my coming endeavors.

I would like to thank my advisor and mentor, Dr. Kelly Way, for her unending support and guidance she has shown to me along the way. She is a constant encouragement and a source of laughter that I incredibly appreciate.



Amy Moorehead

INTRODUCTION

During the past 30 years, childhood obesity has more than doubled in the United States alone (Centers for Disease Control, 2015). Obese children have been found to have risk factors for cardiovascular disease, high cholesterol levels, high blood pressure, and abnormal glucose tolerance (National Collaborative on Childhood Obesity Research, n.d.). Nearly \$150 billion per year has been spent to treat obesity-related medical conditions (Solving the Problem of Childhood Obesity within a Generation, 2010). Childhood obesity has become the number one health concern among parents in the United States surpassing drug abuse and smoking (American Heart Association, 2014).

In relation to different childhood ethnic groups, Hispanic children suffer more from increased obesity rates. Due to the lack of available healthy foods and the low income associated with Hispanic parents, there has been a rise in poor eating habits among Hispanic children (Cummins et al., 2014). Hispanic children traditionally have had a greater risk for obesity than their Caucasian or African-American peers (Leadership for Healthy Communities, 2010). According to Rodriguez (2011), 38.2% of Hispanic children ages 2 to 19 were overweight or obese, compared with 31.7% of other ethnic children. This percentage is particularly alarming given that Hispanic children comprise 22% of the United States youth and represent the largest and fastest-growing minority group in the nation (Salud America!, n.d.).

The purpose of this study was to discover the factors contributing to childhood obesity in the Hispanic culture. The two research questions this study explored were: 1) What factors do Hispanic families feel are most important when purchasing food for their children? 2) What do Hispanic parents think are the common factors contributing to childhood obesity and their child's present and future health?

MATERIALS AND METHODS

The selected target population consisted of Hispanic parents of elementary school students from Springdale, Ark., who had presumed means and ability to participate. It was deemed impossible to survey every Hispanic parent with a child in elementary school; therefore, a convenience sample of parents from the Worker's Justice Center, the Arkansas United Community Coalition and Catholic Charities and the Jones Center's S.O.A.R. afterschool programs were utilized to collect data.

The instrument design consisted of a descriptive, paper survey containing multiple choice questions and Likert scales related to questions regarding childhood obesity. A self-administered questionnaire was developed for this study based on the review of literature and a previous study completed by University of Arkansas' Honors Students, who researched childhood obesity (Altimont et al., 2014). The survey was translated into Spanish and participants were given their choice of a survey in English or Spanish. The majority of the respondents requested a Spanish survey, which was distributed by the researchers. The surveys were collected during the months of February and March, 2015 at the Arkansas United Community Coalition and Catholic Charities and at the Jones Center.

The planned method of data collection consisted of university students handing out the survey to parents as they picked up their children at the after-school care programs. The parents were asked to fill out the surveys when they entered the center. All parents were informed that participation was voluntary and information gathered as a result of the survey would remain confidential. There was an incentive offered for participation: a drawing for four \$50 gift certificates to Wal-Mart. The data collected were analyzed using descriptive statistics, percentages, and frequencies.

RESULTS AND DISCUSSION

The demographic characteristics of the respondents were described for male and female parents of the preschool aged children. The breakdown of the respondents was: 40% male and 60% female. The majority of male respondents were between the ages of 26 and 35 (20%), while the majority of female respondents ranged between the ages of 36 and 45 (26%). The majority of respondents filling out the survey were either the mother or the father to the child. Additionally, all the respondents were predominantly married. Education levels of the respondents rated lower for men than for women. Fifteen of the male respondents (43%) held education levels less than high school or at high school level, while only 20% of the women were high school graduates. Three respondents (9%) held a bachelor's degree. Regarding the higher education degrees, only 3% of each group had received a doctorate degree.

In order to understand what parents felt was most important to purchase when buying food for their family, they were asked to identify how important certain factors were in regard to the food they purchased. These factors were: 1) how safe the food was to eat, 2) nutritional value (how healthy was the food), 3) price, 4) how well the food kept, 5) how easy the food was to prepare, and 6) taste (whether the child liked the food).

The majority of respondents (97%) stated they felt the safety of the food they purchased for their children was very important (Table 1). Respondents were next asked

how important the nutritional value of the food was that they purchased. Again, the majority of the respondents (89%) felt that this factor was important. Price of food purchased was the topic of the next question. Based on 62% of the respondents choosing "very important" and "somewhat important" on the survey, respondents were price sensitive when it came to purchasing food for their family. When asked how important it was that the food they purchased kept well, the majority of respondents (80%) felt this factor was of great importance. Next, respondents were asked how important it was whether the food they purchased was easy to prepare. Seventy-one percent of the respondents felt this factor was "very important" and "somewhat important." Lastly, respondents were asked whether the taste or whether the child liked the food was an important consideration when purchasing food. Seventy-seven respondents stated this was "very important."

Next, the study determined what Hispanic parents thought were the common factors contributing to childhood obesity and their child's present and future health. Nine questions in the survey related to this research question. These questions included factors that contributed to childhood obesity obtained through the literature review, and asked the level of importance based on a Likert scale ranging from "very important" to "not at all important".

These were as follows: 1) what a child eats, 2) how much a child eats, 3) how much exercise a child gets, 4) what the child weighs, 5) if a child exercises regularly, 6) if a child eats too much fast food, 7) self-control, 8) genetics/heredity weight, and 9) advertising of food companies and restaurants (Table 2).

The majority of respondents believed what a child ate contributed to childhood obesity. Eighty-three percent stated what a child ate was important to a child's present and future health. Respondents were then asked to rank by importance, whether they thought the amount of food their child ate contributed to childhood obesity. The majority of respondents (80%) found this factor very important. In contrast, only 3% found this factor not too important. Next, respondents were asked if whether a child exercised would affect childhood obesity. Most of the respondents (80%) believed it was very important to a child's present and future health; in contrast, 3% of the respondents believed the amount of exercise was not a factor in childhood obesity. When respondents were asked whether a child's current weight affected their possibility of childhood obesity, 80% stated weight was very important to a child's present and future health and 3% did not feel a child's weight was related to future childhood obesity. Respondents were also asked whether they

Table 1. Importance factors when purchasing food.

Factor	Very Important	Somewhat Important	Not Too Important	Not at All Important	Not Applicable	Did Not Answer
Nutritional value	83%	6%	0%	0%	0%	11%
Price	51%	11%	14%	0%	0%	24%
How well food keeps	74%	6%	3%	0%	0%	17%
Easy to prepare	57%	14%	6%	3%	0%	20%
Taste	66%	11%	3%	0%	0%	20%

Table 2. Factors contributing to childhood obesity.

	Very	Somewhat	Not Too	Not at All	Not	Did Not
Factor	Important	Important	Important	Important	Applicable	Answer
What a child eats	80%	3%	0%	0%	0%	17%
How much a child eats	71%	9%	3%	0%	0%	17%
How much exercise a child gets	74%	6%	3%	0%	0%	17%
What a child weighs	74%	6%	3%	0%	0%	17%
If a child exercises regularly	69%	9%	3%	3%	0%	16%
If a child eats too much fast food	63%	3%	6%	6%	0%	22%
Self-control	71%	3%	3%	3%	0%	20%
Genetics/Hereditary weight	57%	6%	6%	3%	6%	22%
Advertising fast food	46%	14%	14%	3%	6%	17%

felt how much exercise a child got was a contributing factor to childhood obesity. Over three-fourths of the respondents (78%) stated regular exercise was a very important factor. Furthermore, 6% stated exercise was not important.

Fast food was the topic of the next question. Sixty-six percent of the respondents stated that the amount of fast food a child consumed was important in regard to present and future health, while 12% of the respondents indicated it was not important. The next question involved self-control. The majority of the respondents (74%) stated self-control was important in regard to present and future health, while approximately 6% of respondents said self-control was not important. The next factor respondents were asked about was genetics or hereditary weight. A little over half of the respondents (63%) stated genetics was important to their child's present and future health, contradictory to the 9% who said it was not important.

Lastly, respondents were asked whether advertising by food companies and restaurants played a key role in their child's present and future health. A little over half of the respondents (60%) believed advertising was important, while 17% felt it was not important. It should be noted that 17% of the respondents did not answer this question. It is speculated that the respondents possibly did not understand the question or did not own the media needed to receive such advertising. However, this could be an opportunity to use nutritional education in schools and outreach programs to educate children about healthy food choices and food preparation, which could result in a reduction of childhood obesity.

In conclusion, the varying results showed the differing views respondents had in regard to factors that contributed to childhood obesity. The majority of the respondents found all the factors listed to be "very important" or "somewhat important" to their child's present and future health.

Important data were collected in regard to: "What factors did Hispanic families feel are most important when purchasing food for their children?" One probable explanation for these findings was that of the importance of family values within the Hispanic culture that had been adopted over time. In the Hispanic society, family needs take precedence over the needs of the individual (Teaching From A Hispanic Perspective, n.d.). This demonstrates the value Hispanic families place on their child's safety and health. Another important factor to the respondents was the price of the food that they purchased. According to Pew research by Kochhar (2014), the economy has become a priority among Hispanics, and the recession has hit them harder than other groups. As concluded in the Pew Research survey, price was an important factor to the Hispanic culture and most Hispanic families

were purchasing foods classified as unhealthy when grocery shopping in order to spend less money; therefore, these decisions increased their child's chance of obesity. It must be noted that respondents were placing other factors above price, such as the nutritional value and safety of the food. How well the food kept was another factor that the respondents found to be very important. Once again, the economy and high unemployment rates were a possible explanation for Hispanic families' food choices.

The responses to the set of questions asking respondents what they thought were the factors of childhood obesity, were averaged by combining the number of ratings of "very important" and "somewhat important". Eightyseven percent of respondents agreed that what a child ate, the amount of food a child ate (80%), how much the child weighed (80%), and the amount of exercise a child got (80%) were all direct contributions to childhood obesity. These factors or obesity contributors were closely followed by 78% of the respondents agreeing that how much exercise a child received and the self-control of the child (74%) were factors of childhood obesity. The final three factors were felt to be influential but were ranked the lowest in contributing to childhood obesity. These factors are: if a child eats too much fast-food (66%), genetics/ heredity (63%) and lastly advertising of fast food (60%).

An interesting discovery was that the only factor outside of the parent's control was the advertising of fast food and it ranked lowest in the factors contributing to child-hood obesity. This indicated there was an understanding that advertising played a significant role in childhood obesity rates. When asked directly if they thought too much unhealthy advertising was directed at children, 57% of the participants agreed. The conclusion was advertising and marketing negatively affected Hispanic children. While successful marketing campaigns increased revenue for fast food companies, it also decreased the healthy consumer choices of children (Nestle, 2013).

IMPLICATIONS

Throughout this study, it was evident that there was a need for more Extension and Outreach Programs to help the Hispanic community. Communication barriers need to be broken in order to find solutions to educate the population and to fight childhood obesity. In order to combat the issue of childhood obesity, we suggest educating on a small scale, by spreading education county-by-county, state-by-state, and finally, educating nationally and internationally. Gradual progress has been made, and gradual progress adds up to widespread progress. For instance, in Baldwin Park, Calif. (a town east of downtown Los Angeles), People on the Move (POTM; a Healthy Eating, Active Communities program), worked with

the local school district to make physical education and physical activity a higher priority. Four years after it was instituted, the body mass index (BMI) for fifth to ninth grade students had dropped by 9% (Newbergh, 2013). In the State of Arkansas, the University of Arkansas System Division of Agriculture Cooperative Extension Service addresses issues of childhood obesity through the SNAP-ED program. This program encourages recipients to adopt healthier lifestyles through proper dietary changes and to increase the regularity of physical activity. In addition, this program assists low-income families in improving their diet and overall nutrition based on healthy choices (SNAP-ED, 2015).

After observing the families and their needs within these different organizations in this study, there were specific approaches that could be made to offer solutions in educating the Hispanic community about childhood nutrition. If educational programs were provided to families to teach healthy eating habits to practice at home, this could lead to a major decrease of childhood obesity for the community. This is especially important for the State of Arkansas. In 2012, 28% of the Hispanic children in the state were considered obese; in addition, another 20% were considered overweight (Arkansas Center for Health Improvement, 2012). Furthermore, of the Hispanic children attending Springdale's Elementary Schools in 2012, 21% were considered obese and another 17% were considered overweight (Arkansas Center for Health Improvement, 2012). These statistics made Hispanics the most obese of all ethnic groups living in the State of Arkansas. We suggest that other family members could benefit from these programs as well, by maintaining healthy habits. These would include, but are not limited to, the amount of physical activity needed each week, the importance of consuming a balanced diet, and simple lifestyle adjustments to maintain their healthier eating habits which could be practiced in the home.

In addition, important data were collected in regard to "What factors did Hispanic families feel are most important when purchasing food for their children?" These included a series of questions related to food purchases. This series had the highest number collected in the "very important" category throughout the entire survey. One probable explanation for these findings was the important family values that the Hispanic culture had adopted over time. This was an encouraging statistic and demonstrated the value Hispanic families placed on their child's safety and health. Another important factor for the respondents was the price of the food that they purchased. Fifty-one percent of the respondents said that price was a "very important" consideration. As concluded from this survey, since price was an important factor to the Hispanic culture, it could be surmised that most families were most likely purchasing foods classified in the unhealthy category in order to spend less money; and, therefore, increasing their child's chance of obesity. However, while a little over half of the respondents stated price was an important factor when purchasing food, it must be noted that the other half of respondents were placing other factors above price, such as the nutritional value and safety of the food. How well the food kept was another factor that the respondents found to be very important (74 %). Once again, the economy and high unemployment rates could be a probable explanation to this response, as Hispanic families may not be able to afford purchasing fresh food on a weekly basis.

Furthermore, participants felt that all nine factors in this study contributed to childhood obesity; some moreso than others. Participants ranked these factors in level of importance were: 1) what a child eats, 2) the amount of food a child eats, how much the child weighs, and if the child exercised, 3) how much exercise the child received, 4) self-control, 5) if a child eats too much fast food, 6) genetics/heredity, and 7) advertising of fast food. While other important conclusions were drawn from the collected data, the above conclusions resonated the most with us.

The present and future health of the Hispanic children's population in the United States warrants discussion. The researchers had two research questions that they believed would help address the issue of the childhood obesity epidemic that is sweeping the nation. Noteworthy conclusions were drawn from these research questions and will hopefully be of use to future research in order to decrease the percentage of Hispanic childhood obesity in the United States.

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