



*Research Article*

# **Mexican American Mothers' Perceptions of their Role in Childhood Obesity Prevention: A Qualitative Study**

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Received Date: 26 November 2013; Accepted Date: 13 January 2014; Published Date: 27 March 2014

Academic Editor: Karin Bammann

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## **Abstract**

Despite myriad preventive efforts, childhood obesity rates continue to increase and disproportionately affect Mexican American children. Mothers can be very influential in preventing childhood obesity especially within the home. Home is where children first learn normative behaviors, including dietary and physical activities.

Three focus groups with 23 Mexican American mothers were conducted in Bryan, TX to assess perceptions of childhood obesity prevention. Thematic analysis of interview transcripts was conducted.

Mothers acknowledged they were primarily responsible for their children's health and weight. However, they also identified barriers to obesity prevention and were unsure of which strategies were best for encouraging children to eat vegetables and be physically active.

Mothers can be catalysts to obesity prevention, but programs need to provide the education, skill set, and opportunities to make these differences.

**Keywords** (up to 3-4): Mexican American, childhood obesity, prevention, parent.

## Introduction

### Background

Parents play a fundamental role in shaping the home environment and its concomitant normative behaviors. Parents control which foods are available in the home and their parental style related to feeding (Arredondo et al., 2006) can shape a child's dietary preference throughout his/her life (Jahnke and Warschburger, 2008). Parents also determine the amount of time children spend watching television (Ariza et al., 2004). Parents' role in childhood obesity is so critical that Latzer and colleagues suggest obesity interventions targeting parents might provide longer lasting behavioral maintenance than interventions solely targeting children (Latzer et al., 2009). Research suggests mothers are more influential than fathers in shaping their children's early eating habits, physical activity (Birch and Davison, 2001, Rollins et al., 2007) and subsequent weight status. Due to the influence mothers and their parenting practices have on their children's health-related behaviors (O'Brien, 2007 September) mothers' perceived roles in facilitating childhood obesity preventive behaviors at home are important. If mothers have an unrealistic or distorted view of their role, prevention efforts targeting mothers will most likely be unsuccessful.

The limited amount of available research involving parents has focused on assessing *perceived consequences* of childhood obesity (Baughcum et al., 2000) and maternal perceptions of their child's body size (suggesting mothers are unable to recognize when their children are overweight) (Killion et al., 2006). Fewer studies examined parental perceptions of obesity but these studies have used heterogeneous ethnic groups (McGarvey EL, 2006, Rich et al., 2005) and primarily focused on mothers of overweight children, limiting the ability to learn about the perceptions of mothers with normal weight children.

This study takes a critical first step by: (1) describing Mexican American mothers' perceptions of their role in preventing childhood obesity, and (2) examining barriers to mothers' preventing childhood obesity in their homes.

Understanding Mexican American mothers' perceived role in childhood obesity provides an entry point for researching ethnic disparities in childhood obesity. In this qualitative study, focus groups elicited perceived roles in childhood obesity prevention among a sample of 23 Mexican American mothers living in Bryan, TX.

### Methods

This study employed a qualitative, emergent design. This design is most appropriate for topics that have not yet been fully explored (Lincoln and Guba, 1985).

### Recruitment

Participants were recruited at a Hispanic Health Fair in Bryan, TX in early August 2008. The annual health fair is sponsored by local agencies and provides free school supplies to attendees. Researchers from Child and Adolescent Health Research Lab at Texas A&M University were granted permission to recruit participants at the fair. Inclusion criteria included Hispanic mothers who were: (1) 18 years old and older, (2) lived in Bryan/College Station, TX and (3) had at least one child between 5 and 12 years of age living with them. Eligible mothers provided their contact information to research staff and researchers contacted them to confirm focus group schedules. Participants chose to participate in either Spanish or English language focus groups and bilingual recruitment information was used. Of the 31 eligible mothers, 23 agreed to participate. All materials and procedures were reviewed and approved by the Institutional Review Board at Texas A&M University.

### **Focus Groups**

Three focus groups were conducted in Bryan, TX between August 9, 2008 and August 30, 2008, at a church's community center and local library. Focus groups comprised 23 mothers (15 Spanish speakers and 8 English speakers), with an average age of 32 years ( $SD = 5.3$ ). All participants in the English group were born in the United States, and all participants in the Spanish groups were born in Mexico and had lived in United States for an average of 9.6 years ( $SD = 4.6$ ).

Researchers developed focus group questions in English; bilingual and native Spanish speakers translated them into Spanish and back translation methodology was used to ensure accurate translations. Questions were adapted from previous studies (Jain et al., 2001) and assessed mothers' perceptions of childhood obesity, its causes, and their role in obesity prevention. First, broad-ranging questions were asked to assess mothers' perceptions of childhood obesity. Questions then focused on effective prevention methods.

Focus groups were facilitated by two doctoral-level Hispanic female researchers who had prior experience with bilingual Mexican American participants. One researcher moderated focus group while the other assisted taking notes. Focus groups lasted approximately 1.5 hours each and included free babysitting, a free meal, and refreshments. All participants received a \$20.00 retail gift card for their time. Researchers transcribed audio recordings for analysis.

### **Analysis**

Researchers analyzed data in their original languages to maintain contextual meaning. Thematic analysis of all focus group transcripts allowed researchers to identify emerging themes in the data. Sentences constituted the unit of analysis/meaning. Codes (labels designating categories of meaning) were independently generated by

three bilingual behavioral scientists: two faculty members and one doctoral student with training in qualitative research. The three researchers met after coding each transcript to compare codes, resolve differences in coding and review code definitions. Initial coding resulted in .90 inter-coder reliability. Codes were then compared and aggregated, forming themes. For purposes of this paper, Spanish quotations were translated to English and are denoted with an \*.

Focus groups were anticipated to yield many responses and insights from participants so we kept the focus groups small (six to eight participants). We analyzed the findings periodically throughout the focus group process. When thematic saturation occurred suggesting new groups would no longer produce new findings, we stopped conducting focus groups. Saturation occurred after three focus groups were held.

### **Results**

Mothers identified themselves as the primary person responsible for ensuring a child's health - making sure their children: a) had up-to-date vaccines, b) had a consistent bedtime, c) were physically active, d) were well-fed, and e) ate healthy foods. Through thematic analysis, six main themes emerged regarding mothers' perceptions: home habits, nutrition, exercise, social support, role modeling, and barriers.

#### **Home Habits**

Mothers believed home habits influenced a child's weight status. Home habits included customs families shared such as setting mealtimes, eating several meals daily and regulating appropriate eating contexts. Mothers believed consistent mealtimes enabled their children's bodies to adapt to eating patterns, improving their metabolism.

Mothers stated their children enjoyed eating while watching television. Mothers believed this bad habit made a child unaware of how

much they were consuming, made the child need to eat every time they watched television, and made the child watch television longer when eating. Some mothers required their child to stop watching television and get something to eat when he/she was hungry. A break in the child's attention from the television program or video games reduced the likelihood the child would sit back down to keep watching or playing.

### **Nutritional Content**

Concerning nutritional content, mothers struggled to get their children to eat vegetables. Mothers believed children exposed to vegetables early in life were more receptive to vegetables than their counterparts. Some mothers gave their child frozen vegetables to chew on when they were teething.

A few mothers reported they failed at exposing their child to vegetables at an early age. Several mothers used proactive strategies to encourage vegetable consumption such as not letting their children leave the table until they ate their vegetables. Other mothers increased availability of healthy foods to encourage consumption. One mother said "[I] put...a plate on the table, of ... the baby carrots, with ranch, and [the children] are running there...and ...the plate is there, it provokes them to get one, and later another, and after two hours I return and the plate is clean."\*

### **Exercise**

Most mothers felt responsible for reducing "screen time" and increasing their child's physical activity. Mothers mentioned restricting access to television and video games could increase their children's physical activity because they had fewer alternatives. Mothers also believed family participation increased physical activity and lessened the fear their child would get hurt.

### **Role Modeling**

Mothers quickly acknowledged their responsibility to be good role models for their children, noting children would be less likely to listen to the mothers' advice if parents did not model the behavior. One mother stated,

But, there are times that one, as a parent, doesn't do it, or just wants the kids to do it. And, then, the ... children tell us 'Mom, and why don't you eat that? Why don't you do that much exercise like I do? So, what is it?' One has to set the example so that they can follow it."\*

Mothers recognized the negative effects of role modeling undesired behaviors. One mother described her conflict when teaching her child not to eat in front of the television. The mother stated "the kids watch and ask why their dad eats in the living room and I have them [eating at] the table and, they want to go with their dad. So that is why one as a parent has the blame because we do that."\*

### **Barriers**

In regard to the second research question, we identified several themes related to barriers keeping mothers from engaging in preventing childhood obesity in their homes.

Mothers believed they could influence home habits, but enforcing house rules consistently was problematic. They were sometimes unable to set a consistent eating time for their families. Many times, family dinnertime needed to accommodate the father's varying work schedule. Although the family found it acceptable to eat before the father arrived home, they felt responsible to accompany him when he ate dinner and would often eat or snack while sitting at the dinner table.

A mother's work schedule also posed a barrier. A single mother explained how her work schedule prohibited her from staying home with her daughter when her daughter was on vacation. The mother said her daughter would get anxious and eat throughout the day, subsequently gaining weight. The mother believed her daughter would lose the weight once she returned to school.

Barriers to participating with their children in outdoor activities included weather and safety. Although a few mothers blamed themselves for "being lazy", many mothers found the summer heat prevented them from spending time outside with their children. Moreover, mothers believed children were easier to supervise and less prone to injury if they stayed inside the home watching television.

Grandparents could present barriers to mothers' preventive efforts. Grandparents did not want grandchildren who did not "have enough meat on their bones." One mother spoke about a time she prohibited her son to have a soda, but her mother intervened saying "See, that's the reason why... he doesn't have any meat...on his bones, it's because you don't let him drink sodas." Many mothers had trouble monitoring children's eating when grandparents were present. Several mothers in the English group identified child-eating habits as a main argument they have with their parents. Disagreements were resolved when the parents yielded to the grandparents' suggestions.

Schools were also identified as barriers to healthy eating. Mothers had difficulty preventing their children from becoming overweight with poor-quality food at school. They believed by developing healthy eating habits at home, children were less tempted by unhealthy foods at school.

Mothers expressed no concerns with limiting television or sedentary behaviors, but had emotional difficulty with limiting food

consumption. Their compassion for their children made it difficult to deny another serving for an overweight child, despite the fact he/she might already have had multiple servings. Mothers were more concerned with their child not eating enough food than overeating.

Participants also believed the Mexican culture encouraged a potentially unhealthy body image. Many agreed Hispanic mothers think chubby children are cute and healthy but they understood this is not always the case. Mothers mentioned worrying more about a skinny child's than an overweight child's health. They described numerous situations where other Hispanics would question their skinny child's health, making them worry.

Finances also influenced diet. The mothers believe Hispanic mothers insist on children eating all of the food they are served because they do not want to waste money. One mother expressed her views when it comes to eating out with her children. She said, "because we go out to a buffet and I'm like..., I'm gonna give you all this, but you need to eat all of it ... I didn't pay this much for you not to eat."

Participants identified the Mexican diet as unhealthy. They believed large amounts of salt, oil, and bread in Mexican dishes, alongside sodas contributed to obesity trends. Mothers reported trying to make healthier Mexican dishes; however, they admitted their work schedules made time needed to cook, a major barrier.

Several mothers in the English speaking group explained Mexican food is an important part in Mexican social events. They believed healthier and non-Mexican food was culturally unacceptable at family or social functions. These mothers stated if they attended a wedding with non-traditional food or health food, they would only "eat a little bit and then you go eat somewhere else, you go home, or you go to a restaurant after that wedding."

Finally, mothers in the Spanish speaking groups believed low access to Spanish-language health programs was a major barrier. Most mothers were unfamiliar with Spanish-language programs but mentioned they would probably not be able to access the few available programs.

### Conclusions

Mothers had a general understanding of childhood obesity prevention strategies and felt responsible for their child's health and weight status. They were able to identify barriers associated with promoting health behaviors among their children.

Mothers who fed their children vegetables when they were infants believed this practice made the child more receptive to these vegetables later in life. Research suggests repeated exposure to novel foods increases acceptance among infants (Birch and Ventura, 2009). Previous studies have found (Fulkerson et al., 2011) several mothers not being equipped with the tools necessary to influence their child's diet past infancy. Our mothers reported forcing their children to eat vegetables; however, this feeding strategy can make the target foods aversive to the child (Robert Batsell Jr et al., 2002). Effective strategies for altering children's early-formed food preferences are a critical component of future childhood obesity prevention research and educational programs.

Our mothers expressed difficulty in scheduling time to cook or monitor their children's diet around their work schedules. Another qualitative study also found that working parents have numerous barriers to providing healthy food or home cooked meals for their children (Devine et al., 2006). Concurrent with that study's findings, our mothers were unhappy with their inability to provide healthy foods for their children due to their work schedules. However, one novel finding was the need to accompany the father during his dinnertime.

Grandparents and other family members influenced mothers' perceptions regarding appropriateness of a child's weight. This finding is consistent with research suggesting that mothers (not only Hispanic) will not seek treatment for their overweight child if their family, culture or society believes the child is too small (Goodell et al., 2008). The mother and grandmother conflict that emerged mirrored that noted in Asian families (Bruss et al., 2003). A few mothers saw the schools as negatively influencing their children's health and weight status. A similar study found that parents blamed schools for children being overweight (Fulkerson et al., 2011). Possibly negative views of schools endangering children's health can lessen mothers' likelihood of accepting and participating in these school-driven efforts. More research is needed to elucidate maternal views on the roles of schools in childhood obesity prevention.

Mexican food was mentioned as a central aspect of the bonding in Mexican social events. These ethnic foods might be central to being able to maintain the identity of being Mexican (Benavides-Vaello, 2005). One conceptual paper examining the role of festival foods in the worsening diet of immigrants suggests Mexican immigrants eat festival foods that were traditionally only eaten on special occasions, such as tamales and mole, more frequently as a way of connecting with the acculturative stress (Azar et al., 2012). Limited access to Spanish programs prevented some mothers from participating in health programs. The need for linguistically and culturally tailored programs is highlighted by the fact that programs aimed at high-risk groups provide the most effective interventions for these populations (Ebbeling et al., 2002). Health educators can engage community members to inform program development, ensure cultural appropriateness, and increase buy-in among Spanish-speaking residents.

Our findings are subject to limitations. Small number of participants and geographic location of the sample limit the ability to extrapolate findings and child body mass index was not collected, limiting our ability to associate specific perceptions with child weight outcomes. Focus group participants might be tempted to give socially acceptable answers; however, the focus groups also allowed for consensus on some topics and comparison of ideas. However, the study provided rich insights from a traditionally underrepresented segment of the population, at high risk for obesity. Study participants were recruited through a health fair which might attract participants already informed or interested in health topics. However, the health fair attracts a large and diverse group of attendees. Moreover, consistency of findings with previous research suggests any potential bias was limited.

### **Implications for Practice**

As obesity prevention programs focus on systemic interventions, education is imperative for mothers to address barriers and manage health behaviors within the home. Future programs might emphasize effective child-feeding strategies for toddlers, family-focused activities, culturally relevant programs, and time-efficient cooking ideas.

Some considerations when working with Mexican American families include a focus on

healthy growth and effective negotiating strategies with grandparents. Extended family should be a part of health interventions since they play an important role in food decisions. Time management strategies to help balance family responsibilities with busy work schedules are also critical. Finally, food is not perceived as solely a source of calories and nutrients but rather a tie to ethnic roots, social bonding and maternal roles. Addressing social and emotional aspects of diet is necessary for dietary strategies targeting this population to be effective. This study contributes to limited research on Mexican American mothers' views of childhood obesity prevention. Further research might explore these trends with a larger sample, using quantitative methodology. Mothers can be catalysts to obesity prevention, but programs need to provide the education, skill set, and opportunities to make these differences.

Funding for this research project was provided by the Mexican American and U.S. Latino Research Center, Texas A&M University and the Child and Adolescent Health Research Center, part of the Transdisciplinary Center for Health Equity Research, Texas A&M University.

No competing financial interest exists for any of the authors.

**Table 1: Sample Characteristics**

		English Group (n=8)	Spanish Groups (n=15)
Average Age		28.86 ± 4.78	34.36 ± 4.60
Average Number of Children		3.0 ± .82	3.5 ± 1.19
Household Income			
	\$5,000 - \$15,000 per year	0 (0%)	7 (47%)
	\$15,001 - \$25,000 per year	1 (12%)	4 (27%)
	\$25,001 - \$35,000 per year	1 (12%)	0 (0%)
	Over \$35,000 per year	4 (50%)	1 (7%)
	Don't know	2 (25%)	0 (0%)
Education Level			
	≤ 8 <sup>th</sup> Grade Education	1 (12%)	6 (40%)
	Some High School	1 (12%)	5 (33%)
	Completed High School	3 (43%)	2 (13%)
	Some College	2 (25%)	2 (13%)
	Completed Graduate School	1 (12%)	0 (0%)
Household Composition			
	Live with parents	0 (0%)	1 (7%)
	Live with grandparents	1 (12%)	0 (0%)
	Live with husband	7 (88%)	14 (93%)
Place of Birth			
	U.S.	8 (100%)	0 (0%)
	Mexico	0 (0%)	15 (100%) (Mean = 9.6 years in U.S.)

**Table 2 :Sample Focus Group Questions**

General Prompting Questions
1. What does it mean for a child to be healthy?
2. How do you know a child is at a healthy weight?
3. How do you know a child is becoming overweight?
4. What does the word obese mean to you?
5. What causes a child to become overweight?
6. What role does genetics/inheritance play?
7. Why do you believe some children are overweight and others are not?
8. What do you think parents can do to keep children from becoming too heavy?
9. Describe what you, a mother, could do to keep your child from becoming too heavy?
Questions were modified from Jain, et al, 2001

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