

Poquito a Poquito: How Latino Families With Children Who Have Asthma Make Changes in Their Home

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ABSTRACT

Introduction: The purpose of this study was to assess the cultural and environmental barriers to making asthma-focused changes in the homes of Latino families with children who have asthma.

Methods: A descriptive qualitative design guided data collection and analysis in this study. Participating families described their experiences in caring for their children with asthma and the barriers they encountered when trying to modify their home environments and manage their children's asthma symptoms.

Results: Families discussed a spectrum of methods to manage their children's asthma symptoms, including barriers they experienced and successful changes they made in their homes. "Little by little" parents made minor adjustments, as they were able, to alleviate their children's asthma symptoms.

Discussion: Nurses working with Latino families who experience similar barriers can use these findings to guide inquiries about families' successful changes in their home environment and use them as a starting place to work collaboratively with families to reduce their children's asthma exacerbations. This process will allow nurses to use culturally and family tailored interventions to fit their needs and goals. *J Pediatr Health Care.* (2013) 27, e1-e11.

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KEY WORDS

Asthma, Latino, environment, children

Families who have a child with asthma must make a daily commitment to improve the health of their child and control asthma symptoms. Almost seven million children in the United States (9.5%) have asthma (Bloom, Cohen, & Freeman, 2009), which is a chronic lung disease that causes inflammation and constriction of the airways. Ultimately, children with asthma experience reduced airflow, which limits their physical activity and their participation in school and school activities and may result in emergency department visits with acute episodes (Burkhart, Rayens, Oakley, Abshire, & Zhang, 2007; Cloutier, Jones, Hinson, & Wakefield, 2008). Racial disparities in asthma prevalence and disease management exist,

with a heightened morbidity among minority and low-income children (Flores et al., 2009; Nichols et al., 2008). Factors that contribute to this difference are inadequate medical care, poorly maintained housing, lack of resources, and health literacy issues (Bryant-Stephens, 2009; Flores et al., 2009). Such disparities cost the United States billions of dollars annually (Nichols et al., 2008). Money spent to treat out-of-control asthma should include improvement of asthma care for children of urban minority and low-income backgrounds living in the United States.

Approximately 14% of U.S. children of Latino background have asthma, according to the California Healthy Kids Survey (Davis, Kreutzer, Lipsett, King, & Shaikh, 2006). Children of Latino ethnic backgrounds in the United States who are born in the United States have a greater likelihood of being diagnosed with asthma than are children born in Mexico, based on national surveys of stratified samples, controlling for demographic and asthma risk factor variables (Holguin et al., 2005). Significant barriers to asthma management for Latino families include limited resources as basic as finances, insurance, and clean housing conditions (Krieger & Gruskin, 2001). One way to decrease the risk of children's asthma symptom exacerbation is to reduce environmental triggers in the home. This report is part of a larger study focusing on indoor home allergen exposure, asthma quality of life, and barriers Latino families face in making changes in the home environment for children living in Los Angeles inner-city homes. The research question guiding this analysis is: "What are the cultural and environmental barriers Latino family members experience when trying to modify their home environments to avoid asthma triggers for their children?" Once barriers perceived by these family members are understood, interventions can be tailored and built on current family strategies and successes.

BACKGROUND AND SIGNIFICANCE

Some tasks related to family and child self-management of asthma include recognition and treatment of asthma symptoms, prevention of asthma exacerbation triggers, and medication administration. Assessment of asthma triggers and strategies to reduce the effect on a child's asthma is a difficult task confounded by factors such as child development, family perception and motivation to make changes, and air quality. In addition, parent's personal conceptions about illness and health treatments affect how they will manage their child's asthma (Yoos et al., 2007). Health care providers and parents have been shown to have different conceptions about asthma, and health care providers will need to make accommodations, gain trust, and build partnerships with families when encouraging the best family

management for children with asthma (Yoos et al., 2007).

Families are often responsible for eliminating or reducing environmental allergens to improve the health of their children with asthma. Children with asthma who live in inner-city locations experience a high level of exposure to environmental allergens, which affect their airway inflammation and obstruction. Environmental allergens such as air pollutants, tobacco smoke, nitrogen dioxide (from engine combustion), cockroaches, and molds increase the morbidity of children with asthma (Diette et al., 2007; Eggleston et al., 2005). Berg et al. (2008) found rodent allergens within kitchen dust in the homes of minority, low-income families who have children with asthma living in Los Angeles. Many asthma education programs introduce the topics of allergen assessment and environmental exposures but fall short of helping parents to accept and modify their home environments to improve these conditions.

Community and cultural factors influence how families manage children's asthma symptoms and contribute to environmental contexts. Latino families living in the United States make up the highest proportion of immigrants (Bureau of U.S. Census, 2008), which contributes to language and cultural barriers when accessing health care services. Latinos rely on lay traditional healers within their communities, whose recommendations may conflict with those of health care providers (Clark, Bunik, & Johnson, 2010). Latinos living in urban geographic locations often experience overcrowded housing conditions because their families are large (Bureau of U.S. Census, 2001), and they experience low air quality because of air pollutants. Liu and Pearlman (2009) showed that these factors are associated with a greater likelihood of hospital readmissions for children with asthma. Latino families in the United States who are caring for children with asthma experience fear about the acute care environment, lack of knowledge about how to recognize and manage children with asthma, and stress related to having a child with asthma (Berg, Anderson, Tichacek, Tomizh, & Rachelefsky, 2007). Health care teams within the public and private sectors are called upon to

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improve accessibility, quality, and the accountability of the health care system to improve health for Latino children with asthma (Magyary & Brandt, 2005).

THEORETICAL BACKGROUND

This study uses a theoretical framework developed by Flaskerud and Winslow (1998) called the Vulnerable Populations Model (Figure). The theoretical framework considers the health status of a group of people as interdependent with their relative risk for poor health and resource availability. Interventions can be aimed at decreasing a group's morbidity and mortality through multiple avenues with use of this framework as a guide. This model suggests that with fewer social, economic, and environmental resources available to groups, their risk increases for poor health outcomes. Relative risk is a measure that compares the risk for poor health outcomes between groups with and without resources. Fewer or inappropriate resources raise the relative risk of a group for morbidity and mortality and lower a group's health status. Groups are labeled as vulnerable in this model if they have increased relative risk for poor health outcomes (Flaskerud & Winslow, 1998).

Ethnic minorities have traditionally been marginalized in research and health practice. Latino families who have a child with asthma have described their barriers to coping with and managing their child's chronic illness (Berg et al., 2007). This framework was selected because it provides an opportunity to both assess family strengths and identify barriers to successfully managing a child's asthma within the Latino community. Once these resources and strategies are identified, health care providers can view the community's capabilities and capacities to overcome these barriers and health risks (Anderson, Calvillo, & Fongwa, 2007). Identifying intervening variables that affect resource availability and relative risk will help examine broader contextual factors that contribute to the health status of vulnerable populations.

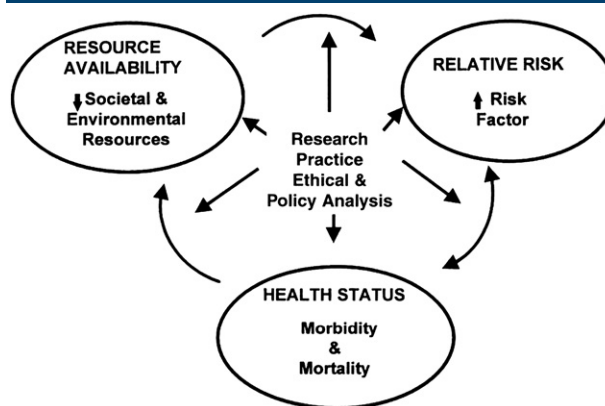
METHODS

As part of a larger study examining environmental allergens in Los Angeles inner-city homes, we explored the difficulties faced by Latino families who have a child with asthma when implementing environmental modifications after a community-based intervention. A qualitative approach was used, and group interviews were conducted with family members.

Sample

We enrolled participants of the Community Intervention Project on Asthma: The La Casa Study. The La Casa Study was a randomized community trial to evaluate the effect of a comprehensive environmental program on allergens in the home. The La Casa Program included an in-home educational component to assist

FIGURE. Nursing Vulnerable Population Model as described in Flaskerud & Winslow (1998). Reprinted with permission.



families in understanding environmental housing conditions that increase the presence of these allergens, such as the presence of dust, mold, or unclean areas. Education included instruction on ways to remove these risks for potential allergens and reduce the risk of asthma episodes in their children (McConnell et al., 2005). A full description of this larger educational intervention is beyond the scope of the current study, which focuses on families' responses to this intervention. Two hundred children with asthma who were allergic to dust mites and cockroach allergens were recruited for the larger study. For the current study, parents and children were recruited from the larger study sample.

Participants were Latino, lived in Los Angeles, and resided in neighborhoods of mostly apartments and a few rented single-family dwellings. Eligibility criteria for the larger study included Latino children who were 6 to 14 years of age at the time of enrollment who had a clinical history of asthma for longer than one year and a baseline asthma severity rating of persistent asthma. Children who had a biological parent who was Latino were determined to be of Latino descent, based on parents' self-report. Exclusion criteria included a history of chronic respiratory disease other than asthma, severe chest trauma, or having a sibling already enrolled in the study.

After receiving Institutional Review Board approval, staff informed participants about this study by distributing flyers (in Spanish and English) over a period of 2 to 4 weeks. Eight families volunteered to participate, but only six families attended on the day of the focus group. All pieces of written material related to this study were written in both English and Spanish, and bilingual research staff members were available at every participant contact to ensure understanding and to answer questions. The flyers briefly described the study, including information about the group interview. Interested persons indicated a desire for us to contact

them and permitted study staff to forward their names and phone numbers to us. Study staff telephoned interested persons and invited them to participate in a focus group to be held in their community to discuss environmental allergens with other families. Eight families who had a child with asthma and received the intervention in the La Casa Study volunteered to participate. Families continued to obtain the usual care for their child with asthma at the Breathmobile Program. Participants agreed to attend one group discussion. Staff arranged a convenient group time based on participant availability and arranged that the group be held at a location within the participants' community. Staff also offered transportation; one participant requested and received cab fare to attend the group.

Eight participants representing six families were available and attended the group interview. Family members were five mothers, two fathers, and one adolescent child; one family had the mother, father, and child attending. The adult participants ranged in age from 31 to 62 years. Most participants were born in Mexico, and one participant was born in the United States. All spoke Spanish in their homes. Five families reported having health insurance for both health problems and medication, while one family reported having no health insurance; we do not have information about the exact form of insurance coverage. Participants varied in education accomplishments, with some completing 5th, 6th, 8th, and 9th grade but no one completing school beyond 9th grade. Five of the six families had received some form of asthma-related education, while one family denied receiving any asthma education.

Procedure

The University of California–Los Angeles Institutional Review Board approved the involvement of human subjects. Prior to the group meeting, all focus group participants read over and signed consent forms. Consent forms were in both English and Spanish. Bilingual research staff met with families individually for any questions about the consent and study activities. Research staff provided child care for families while adults enrolled in the study and attended the group session.

A Latino bilingual research staff member facilitated the group meeting, which was conducted in Spanish. Participants agreed to audio taping of the session. Research staff gave each participant a copy of the group interview guide. Content of the group interview guide focused on experiences of having a child with asthma, asthma triggers at home, experiences with changing the home environment, the need for further information, and their suggestions for others on home environment improvement.

The facilitators spent approximately 90 minutes with the group and covered the group interview guide questions. The interview guide reflects a series of inquiries

about the children's illness histories and social milieu, community strategies already in place to aid in children's health, and barriers families are experiencing related to improving their children's health. These questions aid in understanding these families' relative risk and ways to reduce barriers to improve these children's morbidity. These questions included: (a) Describe your experience of having a child with asthma and learning about the things that trigger asthma cough, wheeze, and trouble breathing; (b) describe what you have been told about things that make your child's asthma worse; (c) describe if there are things you have been told that you need to change in your home to make your child's asthma better; (d) tell us if you have been able to make the changes in your home, how difficult or easy it has been, what the barriers were, and what helped; (e) in what area do you need more information about making changes at home for your child's asthma; and (f) if you found out that a friend's child has asthma and he/she needed to change things in the home, what advice would you give? Information from these participants emerged within the context of the focus group process (Oldenburg, Williams, Maas, & Tripp-Reimer, 2007). These open-ended questions allowed families to discuss and pull information from multiple different educational sources and information they received, not solely from the La Casa Study educational intervention (which focused on household allergen removal). This report focuses on the analysis of the information that resulted from focus group members. Participants listened to each question. They responded to the questions and comments of group members. They readily spoke up and interacted with the facilitator and with each other by asking questions and supplementing pieces of information brought up by other participants.

At the end of the group meeting, the facilitator and primary investigator invited families to consider being part of an advisory board for future studies to address an educational intervention based on specific needs of the Latino population of families who have a child with asthma. Members expressed interest in furthering the development of an educational intervention for other families with a child with asthma. After the group session, staff expressed appreciation and offered a \$25 supermarket gift certificate to the families who participated.

Data Management and Analysis

After the focus group was complete, the bilingual group facilitator transcribed the audio tape recording of the group session verbatim, then translated the transcript into English. English translation was checked for accuracy by an additional bilingual staff member. The transcribed group interview transcript was entered into NVivo in an organized fashion for retrieval during data coding and analysis. Group interview data were

qualitatively analyzed. The goal of this qualitative data analysis was to describe the barriers identified by these families about implementing changes in their homes in order to improve the health of their child with asthma.

We used qualitative content analysis to focus on items and language within the text as well as the content or contextual meaning of the text (Hsieh & Shannon, 2005). More specifically, we used summative content analysis to focus on the specific language used by multiple members in the focus group, such as the term “little by little,” or *poquito a poquito*. Summative content analysis in qualitative research not only identifies the textual meaning of these phrases but interprets the content in order to understand the underlying meaning of this phrase (Hsieh & Shannon, 2005). This analysis focuses on the adjustments families make *poquito a poquito* in order to identify how community health nurses can intervene in a way that is useful to families who care for children with asthma.

The transcripts were read through at least two times to become familiar with the material. Preliminary analysis allowed the researchers to see that families in this focus group were able to accurately identify specific strategies to modify their home environments in order to alleviate asthma triggers for their children. Inductive coding included labeling pieces of the text into meaningful codes without the use of a priori codes (Patton, 2005). These codes were then clumped into clusters and themes by categorizing them into broader concepts. The principal investigator reviewed and identified themes common to the experience of the families. In addition, a second reader familiar with qualitative research confirmed the themes. This in-depth analysis showed that parents and families made minor adjustments or attempted to make adjustments, getting stuck along the way.

The focus group transcript was read again to re-contextualize the themes. For example, while reading the transcript, some sections were coded as “follow instructions” or “maintain nutrition”; these sections were then categorized into a theme about “strategies.” When re-contextualized, these strategies were identified as what families already knew, or what families needed more information. Themes emerged from this focus group that portrayed some strengths and barriers experienced by families. After these themes were re-contextualized within the transcript, the investigators identified how these families continue to work through each of these barriers *poquito a poquito*.

RESULTS

The purpose of this study was to identify cultural and environmental barriers faced by Latino families in making changes in their homes to reduce asthma triggers for children. Guided by the Vulnerable Populations Model, participants were asked to describe their children’s illness history and strategies and barriers

they were experiencing to reduce their children’s asthma exacerbations. A rich discussion emerged about sorting recommendations and information from a variety of educational sources and their strategies for trying to follow these recommendations. The families discussed their goals of reducing environmental triggers for their children’s asthma in the home but described where they got stuck along the way. We broke the findings into three themes, using the summative content analysis previously described. The first theme is the families’ description of barriers to making changes or managing their child’s asthma symptoms; some of these barriers originated within the family and others originated outside of the family. The second theme included families working *poquito a poquito* to achieve their goals, and this is described above as the central focus of our analysis. The final theme elaborates on families’ achievements thus far in reducing asthma triggers and managing their children’s asthma symptoms. These themes are highlighted and summarized in the Table.

Barriers: Detours on the Road to Changes in the Home

Families articulated their frustrations regarding limited options for employment, school resources, and access to health care providers who were willing to assist these families along the way. An abundance of detrimental societal factors in their child’s life caused families concern because they believed that these factors were beyond their control. The best families could do, despite these frustrating external barriers to their children’s health, was to focus on how their own family could make changes little by little in their home environment. Despite their best intentions to make the home environment the one safe place for their child with asthma, they experienced internal, cultural, and familial roadblocks (Table).

Parents felt some frustration that the children themselves made decisions that conflicted with their parents’ recommendations about their child’s health, which parents described as affecting their ability to care for their asthma. Parents were encouraged by their health care providers, local newspapers, and community to keep children’s weight low with a nutritious diet to prevent asthma complications. Six out of the seven parents in the focus group expressed their concern that nutrition and proper food was an important part of caring for their child’s asthma. A parent describes her struggles with maintaining good nutrition for her child who did not obey by stating, “What I am doing is changing his foods. But it is hard because he does not like them...he is there at the table, I get distracted, he goes into the refrigerator and takes out something else. He eats it when I am not looking. Then, what I am battling with him is that he does not like vegetables...I have not been able to make him lose weight.”

TABLE. Parents making changes in the home

Barriers in the home	Little by little: In the process of change	Successes
Cultural traditions and information do not coincide with advice from biomedical information	Sifting through information and treatments from multiple sources; knowledge about greater societal issues (e.g., organic food, pollutants) helped these families recognize health barriers	Accurately identify triggers
Housing conditions: crowded, smoking, tracking work pollution into the home	Making change as they had the money to do small things	Simple fixes around homes, such as changing curtains and getting rid of pets
Discordance between parents and children	Breaking family habits (e.g., owning a pet or smoking)	Desire and efforts to work with children as a team

Because of limited opportunities, families also spoke of not being able to avoid what they perceived as asthma triggers in their immediate environment such as pollution, air allergens, and chemicals that parents had on their clothing from their work environment. A mother summarized the risk by saying, “We know the environment is contaminated. This is harmful to them but we cannot avoid it.” Those who work in settings with air allergens also bring home possibly harmful air, according to one father: “The type of work we have.... I work in a factory and ... a lot of fabric is

cut there.... And that same dust that falls on our shoulders ... that is bad for the children.” Changing jobs would prevent the need to make adjustments such as changing clothes and showering before going home every day. Although many parents perceived working in a fabric factory as dangerous to their child’s health, they did not mention searching for new jobs, which represents the burden of vulnerability that these parents face. In most cases, parents do not have the luxury of changing jobs despite the fact that their work situation adds to the risk to the health of their children.

A significant barrier to asthma management is the families’ own perceptions and cultural customs that caused families to hesitate in believing all potential asthma triggers. For example, families were taught that stuffed animals, pets, blankets, overcrowded bedrooms, or playing in the grass can worsen a child’s asthma. The adults were surprised that such items can exacerbate their child’s asthma and had trouble acknowledging them as harmful to their child’s health. One mother explained, “There are times that you cannot fight your own ignorance. For example, regarding cockroaches, they say, “how can they harm you?”

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Well, yes, they are harmful but one doesn’t understand it.” Another father agreed by saying, “...how is it possible that the stuffed animal is harmful? How is it possible that a dog is harmful? What do you mean the cockroach is harmful? I don’t believe ... what affects my girls is what she breathes.” Their beliefs, which were in existence for years from past traditions, made it very difficult for them to change their actions.

Additionally, families lived in housing units that had many other residents. Space to breathe clean air is a basic need for children, especially children with asthma, and overcrowded houses caused great distress to parents. Homes were polluted by family members smoking indoors, car exhaust from nearby busy roads, and outdated carpeting or curtains. Many children were sleeping, crowded with other children, in the same room. Describing her living situation, a mother reflected:

...I had the bad experience of ... renting with more people. Well then, when they are not your children it doesn’t matter to you.... I rented with those people ... about six of us. The majority were adults, men. And weekends were drinking and smoking. Friday, Saturday, and Sunday. And as I said before, one’s ignorance too.... We would sleep there with the child, throwing out all that smoke. And that lasted almost a year.

Parents discussed many possible options to relieve overcrowded bedrooms. One solution mentioned by one parent was to place the child with asthma in a room by herself and have the other children sleep either in another room or the hallway. Other possible options included asking adults to stop smoking (although parents were still bothered when neighbors smoked) or to move away from unaccommodating landlords. Other families said that they were still struggling to make changes within their home and neighborhoods. Much of this was beyond the control of low-income families who admitted that their rent was expensive, and it was a part of the way that these families needed to live.

Families struggled to prioritize and choose between educational sources. Education from the Asthma Mobile and La Casa sources focused on environmental

allergens with these families, while they were getting information from their physicians, lay, or community sources to improve their asthmatic child's health through proper nutrition and appropriate food. The families read in their local newspaper that grapes are good for controlling asthma. A local Latino healer recommended onion with garlic. One father says, "There is [sufficient education] but it comes from all sides." Another father echoes, "La Casa informed us of all the things that are in the home. We also need more classes ... about nutrition for children with asthma." A mother expressed her uncertainty about their traditional food, saying, "This is true. We eat chili, but the children don't.... We want to make them eat chili! 'Eat, if not, you are not my daughter!'" None of the families described a health provider who helped them to prioritize or sort this information. They were incredulous about some of the information they receives from the La Casa study and were somewhat hesitant about some of their own cultural remedies, but they were not sure which methods were best for improving their child's health and reducing the child's risk for asthma episodes.

Poquito a poquito

Families used the phrase *poquito a poquito* multiple times throughout the interview. This phrase *poquito a poquito* was articulated by a variety of participants and is representative of the changes that families were attempting to make over time (Table). Parents set goals to take the necessary steps to remove asthma triggers for their children. While the families admitted to feeling frustration about specific barriers inside and outside of their homes, they were determined to make changes slowly as they were able to do so.

An incredible amount of information trickled into their homes, and parents were then responsible for siphoning off the information that was most relevant to their child's condition. Family members mentioned receiving education from multiple sources, including their health care providers, local newspapers, the Asthma Mobile Van that visited their schools, asthma educators who visited their homes through the La Casa Program, and other families who passed along anecdotal information. The families seemed to struggle with the choice between following recommendations from professional health care providers or lay sources that they perceived as more congruent with their culture. One parent said,

Because there are times a family member comes...saying, 'Over there in that street,' she says, 'there is a man that reads eyes and tells you what to buy so that your child's asthma goes away.' And I was left like, 'How is it possible that a doctor that studied I don't know how many years and has not been able to find a cure for asthma. How can you say a man that just dedicates himself to reading eyes [knows] ... perhaps he doesn't

even know?'...others come and [say], 'You know what?...give him this and...'onion with garlic' and I don't know what else and ... there are a lot of parents that do it. For me, at least, I do not experiment with my children. For me, what the doctor says is better.

Parents described how some families lean toward following cultural traditional healing methods recommended by lay Latino community members, while some families lean toward following biomedical advice.

Others expressed their difficulties in weighing their own traditions against new and modern ideas of medicine. One father explained, "Yes in spite of that ... we have the custom of living many years ... it is hard for us—even ourselves to acclimate to the form of life of this food. But we have to do it, you know? And, I mean that, it is hard for us ... to have a lot of information—well—we do not take it 100% due to our lifestyle from years ago."

These parents appeared to be actively seeking and receiving education about how to reduce and eliminate triggers for their child's asthma. However, the information they received from multiple sources was not always consistent, and they had to sort through the most salient and beneficial information one piece at a time. One woman stated, "Well then, if we hear all that and know all that, I ... give it to my son *poquito a poquito*. Well, we as parents have to feed ourselves from the information that is brought to us in the newspapers or the radio or [other sources]. From whatever thing we need to avail ourselves of to be able to complete all that, you know?"

Whether healthy or not healthy, family habits were hard to break for the sake of their child's health, but families were aware of their sacrifices and were making adjustments as they were able to do so. One father stated, "I mean that little by little a person does it. And there are things that, really, you don't want to be rid of because they want to have them—like the dog." Parents are also trying to change their lifestyle inside the home to prevent asthma triggers for their child. One mother stated that "...my husband, he is leaving the cigarette *poquito a poquito*. He did not want to, but he saw how he got as a consequence of that."

Furthermore, the families agreed that financial resources were a barrier to making necessary changes to their homes and lifestyles. Parents admitted that they struggled to find enough money to change the drapes in their living rooms, buy the right food (healthy and organic without chemicals), buy higher quality clothes without allergens in them, implement flooring other than carpet, and pay for insurance. One couple indicated, "Money, I believe, is a barrier because you cannot change everything without money ... she has to change the [floor]—the carpet, but all that takes money ... there is no money to put another—another floor or—it is changing *poquito a poquito*." Another parent echoes the difficulty in changing the flooring

in their home to prevent asthma triggers by stating, “We are to change the flooring but that we have not yet ... everything costs (laughs) and more because it is the living room and two bedrooms. Just imagine, So, everything *poquito a poquito*. But yes, the little changes help.” Without sufficient funds, families found it very difficult to make the changes recommended by professionals. They do what they can with the finances available but believe it is not enough to make all the changes necessary for their child’s health right away.

Successful Strategies: Steps Forward

The families described with specific examples the many accomplishments and improvements they made to their home environments (Table). Families demonstrated a strong base of knowledge about food-related asthma triggers and some other environmental asthma triggers in their homes. Triggers related to the environment mentioned by families included grass, dust, cockroaches, clothing, bed covers, mites, pets, and dolls. Families discussed nutrition and food at great length, including the type and quantity of foods they perceived as harmful to their children’s health. One mother described her understanding of food triggers: “I learned that certain foods affected her too. I also tried to make changes with food and, well, 4 years without getting sick is a lot of help.”

Families discussed methods of actively changing their home environments, starting with simple changes, and then strategized with each other about how to make more complex home alterations. One mother explained, “Ridding myself of everything: mold, dust, the carpets, curtains, my son’s asthma has stopped.” Another mother said, “I took out my plants.... I don’t keep animals ... I took away all the stuffed animals.” In order to rid the household of dust, an easy switch for one family was from curtains to blinds. One mother stated, “...they say it is much better to put the plastic [curtains], you know....” And another mother indicated, “I ... use the fabric [blinds]. Because I take it off, I wash it and it is done. The dust falls off.” One family mentioned placing a smoke extractor in their kitchen to remove the smoke and cooking odors from their home. Additionally, despite children and family attachment to pets, the ultimate decision across group members was to sell household pets. One woman described the benefits as such: “I had to rid myself of all the pets that we had, and my son is now better.”

Some parents, recognizing that they could not succeed alone in reducing asthma triggers, recruited the help of their children. One mother mentioned including her daughter with asthma in household chores, and taking special precautions: “She cleans with a mask and a damp cloth. She fixes her bed. If she uses Windex where it is needed, well, also with a mask, and she opens the doors and windows.” However, families found that working with children was not

always easy, because children are not always obedient. Parents agreed that educating their children would be an asset to making changes within their family and household. They felt that interventions that include the whole family would be helpful. These parents asked nurses to help them involve children so that the families would work together as a team. “...if you could do something ... for educating us the parents [about] how we should treat the children in the family.... Because many times there are tensions and problems at home and it affects the children too,” one parent asserted. By identifying the importance of involving children while making changes in the home, parents took the first steps toward empowering children to maintain their own health by avoiding asthma triggers.

DISCUSSION

A limited number of studies address the issues experienced by low-income families with sustaining the effects of an asthma community-based intervention (Krieger & Gruskin, 2001; Lobar et al., 2008). Our study uses a focus group discussion to allow participants to build off each other’s experiences, speak in their own language, and describe their strategies and barriers with making the changes recommended by health providers and lay community health workers. The main goal of these community-based interventions is to improve children’s health through fostering relationships between families with a child with asthma and health care providers (Berg et al., 2007; Lobar et al., 2008). However, families experienced challenges despite the community-based efforts of these interventions. Nurses are in a key position to collaborate with families and ethnic urban communities to help implement home improvements and lifestyle adjustments despite cultural and social barriers.

Children living in poverty face multiple risk factors that increase asthma morbidity, including rodent allergens, airborne pollutants, and environmental tobacco smoke (Berg et al., 2008; Diette et al., 2007; Eggleston et al., 2005). Irritants from working in textile factories have been shown to increase risk for asthma (Chaari et al., 2011), and one family in our study struggles with the father bringing home air allergens from his clothing after work at a fabric factory; however, they believe their options for changing occupations is limited. A new and important finding from this analysis is that families are, at their own pace, making progress toward adjusting their homes and lifestyles to prevent these asthma triggers from afflicting their children. These Latino families who live in urban areas and have minimal financial and community resources found creative ways to meet the recommendations of the health care providers described during our focus group discussion. Mitchell, Murdock, and McQuaid (2004) defined childhood asthma resiliency in terms of effective asthma management strategies and lower asthma morbidity

despite adverse social and biological factors. Although some parents seemed to be successfully making some changes to their homes that reduced environmental allergens, the necessary partnership of parents, children with asthma, and health care professionals may be missing in some families.

Our study indicates that when parents partner with their children in implementing strategies for asthma management, parents report experiencing better results despite the risk factors. Participants of our study requested that nurses offer children asthma self-management education. Vinson (2002) stresses the involvement of children in coping with asthma. In her study, she acknowledges that the family environment directly affects a child's self-esteem, coping styles, and sense of coherence. This, in turn, influences the child's adaptability and perception of asthma symptoms. Some children with asthma in this study did help make modifications and used strategies to avoid triggers such as wearing a mask while washing windows with aerosol cleaners.

Parents expressed the difficulties of finding a balance between recommendations from multiple sources. To provide the highest quality of care, health care providers need to find out normative and cultural values of families and accommodate education or clinical practice to these values (Brotanek, Seeley, & Flores, 2008). Lay healers suggested a variety of home remedies; physicians encouraged children to maintain low weight and good nutrition to reduce asthma symptoms, while the La Casa and Breathmobile interventions focused on home environmental allergens that affect children's asthma. This study supports previous studies that show that community-based education interventions for families need to build on cultural strategies and resources of the community (Berg et al., 2007). The community expressed an urgent need to obtain information about how to reduce asthma triggers and make as many changes as feasible, given financial and social resources. Nurses are in a position to educate and support families as they sort information from lay and professional providers and to merge these recommendations by setting priorities and ensuring their validity. Attempts were made by the La Casa intervention to be culturally relevant by having educators work with families in their homes with bilingual educational materials.

Our study indicates that when parents partner with their children in implementing strategies for asthma management, parents report experiencing better results despite the risk factors.

Although this study brings to light many insights that may be present in other Latino families, it may have limited generalizability to other Latino families or communities. The sample size for this study was small ($N = 8$, representing six families), and all of the participants were from an urban setting. The focus group method provides some inherent biases, such as shared information and possibly dependent responses to one another. In addition, we had limited knowledge about other sources of education that these families received because the sample stemmed from the La Casa study; this situation made it difficult to evaluate and discuss other educational advantages or limitations. Despite these limitations, we believe that the insights from this study may provide valuable information for future research and nursing practice.

CONCLUSIONS AND IMPLICATIONS

In summary, this study highlights both successful strategies and barriers to making changes in homes of Latino families to reduce asthma morbidity in children. Acknowledging successful strategies being used by families who have children with asthma will aid in empowering them to use their own resources to reduce asthma triggers. Nurses working with Latino families who experience similar barriers can use these findings to guide their inquiry about what families have successfully done to reduce asthma triggers for their children. This discussion can be a starting place for working collaboratively to identify barriers and use culturally and family tailored interventions that fit the families' needs and goals. Nurses are in a position to emphasize the interface between health care services and families in the community setting and can assist families by eliminating environmental allergens through cost-effective and beneficial interventions.

Asthma care models should address ways of incorporating the whole family as a team with children in making any necessary life changes/negotiations. Health care providers must ensure that nutrition education is applicable to the families and that children are involved in the education. Based on recommendations and needs of these families, future research should be conducted regarding suggested nutrition for children with asthma. Research based on the link between asthma and obesity has inconsistent results; however, obesity is shown to worsen asthma symptoms and is often a comorbidity with asthma (Guerra, Sherrill, Bobadilla, Martinez, & Barbee, 2002; Nurmatov, Devereux, & Sheikh, 2011; Peters et al., 2011). Families suggested that they struggled to decide between using information from lay community health providers, such as the "eye-reader" mentioned by one family, and their regular health care provider. Nurses can strategize with families about (a) ways to use forms of appropriate and safe complementary medicine recommended by lay healers in their community along with biomedical advice, (b) setting priorities, and (c) tailoring advice to their

lifestyle. Families are capable of making minor adjustments to their homes such as changing curtains and flooring, buying foods without chemicals, and accessing the insurance they need to have appropriate health checks for their children. However, because we know that many Latino families live with large numbers of people in one house and often gather together, nurses can adjust some recommendations for home activities and recommendations for children with asthma so they have the space they need to breathe effectively. Nurses and health care providers should acknowledge and accommodate families' beliefs to determine what is most appropriate for the health of their child. Nurses at every level of community health can help educate parents, their families, and community members and advocate for social change that helps families reduce asthma triggers such as environmental pollutants in the home.

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