



Broadening Mothers' Knowledge, Skills and Social Networks to Improve Latino Family Health

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Abstract

Ethnicity, culture and place affect a person's health (Bonder, Martin, & Miracle, 2001), and social ties among immigrants play a central role in preservation of health (Romero de Slowing, 2012). Thus, interventions that are aimed to improve the health status of Latino immigrant populations need to consider barriers to health (e.g., place, acculturation, knowledge, skills) as well as Latino cultural values in order to be effective (Cristancho et. al 2008). Commonly, the concept of "health" among Latinos refers to the balance of social, physical, spiritual, and psychological aspects of an individual (Spector, 1991), and "good health" is associated with absence of illness (Reina, Greder, and Lee, 2013).

Based on data gathered 2011-2013 from 98 individual interviews and a focus group interview with Latina immigrant mothers in rural Iowa, Iowa State University Extension is piloting a series of health focused workshops for Latina immigrant mothers. The workshops are designed to offer mothers a space where they can learn and share information about health, wellness and nutrition, and at the same time strengthen social networks with each other. We will share a summary of the data related to mothers' health concerns, how they want to engage in education to improve their health and the health of their families, workshop details including recruitment, topics, learning activities, and preliminary data. Workshop objectives include:

- Reduce feelings of loneliness and isolation among mothers
- Broaden mothers' knowledge and skills related to preparing traditional cultural food dishes with less fat or "healthy fat", less salt and less sugar
- Mothers identify strategies to maintain cultural foods in their family's diet despite new demands on family time and changing child food preferences
- Broaden mothers' knowledge related to how to incorporate inexpensive, enjoyable family activities that involve physical activity into routines at home and or in the community
- Broaden mothers' knowledge and skills related to growing food and herbs in Iowa

To briefly summarize the interview findings that shape the workshop series: Mothers want to interactively participate in educational programs, and share knowledge and skills with each other. Mothers expressed feelings of isolation, and strongly desired to meet as a group on a regular basis to share, discuss, and broaden their knowledge and skills to improve their health.

Specifically, mothers expressed interest in learning how to grow food and herbs in their new community, cook with less oil, help their children desire and eat traditional foods at home versus wanting “American food”. Mothers also expressed concern with canned, pre-packaged and frozen foods served at school and didn’t know what they could do about it. Mothers stated that they are not as physically active as they would like to be. In their home country, physical activity was built into their daily activities. Mothers also shared concerns about accessing health-care in the community. They do not feel comfortable going to the health clinic in the community. Mothers want to learn more about where and who they can go to in the community for information and resources to help their families.

Keywords: health education, knowledge, and skills, Latino immigrant, social networks, qualitative

Introduction

Latinos are the largest ethnic subgroup in Iowa, and comprise 5.5 percent of Iowa’s population (State Data Center of Iowa, 2014). By 2040, the Latino population is expected to increase significantly and represent 12.4 percent of Iowa’s population (Woods & Pool Economics Inc., 2014 as cited in State Data Center of Iowa, 2014). As the Latino population has grown, so has poverty and food insecurity among Latinos. Approximately one third (32.6%) of Latinos in Iowa experienced poverty in 2011, compared to 12.8 percent of Iowa’s total population. While the median income for Iowa households in 2012 was \$ 50,957, the median income for Latino households was \$ 36,642 (State Data Center of Iowa, 2014). Food insecurity has been defined as limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire food in socially acceptable ways (Life Sciences Research Office, 1990). Approximately one in four (23.7%) Latino households were food insecure as compared to one in seven (14.3%) U.S. households (Coleman-Jensen, Gregory, & Singh, 2014). In a recent study in rural Iowa, the food insecurity rate among Latino immigrant families was 28.9 percent (Greder, Romero de Slowing, & Doudna, 2012).

Studies reveal that both poverty and food insecurity, as well as low health care utilization, compromise health (Ng’andu & Lean, 2006). A quarter of the Latino population (24.0%) was uninsured compared to 8.4 percent of the total Iowa popula-

tion in 2012 (State Data Center of Iowa, 2014), even though 16.2% were eligible for health insurance (Gee, 2014). However, for Latino immigrant households the rate is even higher. A recent study of Latino immigrant families in rural Iowa revealed that 81.9 percent of mothers and 26.5 percent of children did not have health insurance for at least one month in the past year (Mammen & Sano, 2013).

Before immigrants move to the U.S., they often are in better overall health, have healthier eating habits, and lower rates of obesity than their U.S. counterparts (Antecol & Bedard, 2006; Fitzgerald, 2010; Singh & Hiatt, 2006). However, immigrants commonly experience diet changes (i.e., increased fat and calorie intake and decreased fiber intake) (McArthur, Viramontez Anguiano, & Nocetti, 2001) and lifestyle changes (e.g., nature of employment, sleep patterns, and less physical activity) due to acculturation and other reasons (i.e., food availability, accessibility, affordability, and time resources) that increase their risk for obesity. As Latino immigrant children grow up in the U.S., their exposure to and consumption of canned, prepackaged, frozen, and fast food increases, commonly resulting in children developing preferences for “American food” over traditional food from their home countries (McArthur, Viramontez Anguiano, & Nocetti, 2001). This causes concern and frustration for parents who perceive traditional food as healthier and as a tool to transmit culture. They also typically engage in more sedentary behaviors (e.g., electronic games, TV) and are less physically active as part of their daily activities (e.g., walk to

school or food market less often; do not play outside as often) than they were in their home countries. These new food preferences and changes in child eating and physical activity patterns can be detrimental to children's health (Antecol & Bedard, 2006; Pérez-Escamilla, 2010), and lead to overweight or obesity among children.

While there has been increased attention focused on the Latino population over the past decade, few studies or educational outreach efforts have focused on Latino immigrant families living in rural communities (Grant & Demerath, 1999). Numerous studies suggest that ethnicity, culture and place affect a person's health (Bonder, Martin, & Miracle, 2001; Bagley et al., 1995; Northam, 1996), and social ties among immigrants play a central role in preservation of health (Menjivar, 2002; Romero de Slowing, 2012). Thus, interventions that are aimed to improve the health status of Latino immigrant populations need to consider barriers to health (e.g., place, acculturation, knowledge, skills) as well as Latino cultural values in order to be effective (Chistancho, Garces, Peters, & Muller, 2008).

A Response to Improve the Health of Latino Immigrant Families in Rural Iowa

In response to the concerns just described, as well as findings from a study that examined the physical and mental health of Latino immigrant mothers and their children living in rural Iowa (Greder, Romero, & Doudna, 2012), Iowa State University Extension and Outreach developed and is piloting a series of health focused workshops aimed at improving the health of Latino immigrant families. The workshops are designed to offer mothers a space where they can learn and share information about health, wellness, nutrition, and relevant community resources, and strengthen social networks among each other. This paper summarizes key findings from individual and focus group interviews with Latina immigrant mothers conducted by Iowa State University, which informed the development of the workshop series.

Rural Iowa Latino Immigrant Families Study

Data and Sample

The study included individual surveys interviews with closed and open-ended questions, and a focus group interview of Latina mothers. During 2011 – 2012, 98 Latina immigrant mothers in rural Iowa were recruited to participate in the study Rural Families Speak about Health (Mammen & Sano, 2013) conducted by Iowa State University. To be eligible to participate in the study, mothers had to be 18 years of age or older, identify as Hispanic or Latina, have at least one child under the age of 13 who lived in their home 50% or more of the time, have a household income at or below 185% of the federal poverty line, and live in one of the identified study communities. During September 2013, Iowa State University Extension and Outreach conducted a focus group interview with sixteen Latina immigrant mothers in a rural Iowa community to explore how to best design Extension education to help improve the health of rural Latino immigrant families.

Methods

An individual from the study community who was a native Spanish speaker and who had strong interpersonal communication skills was trained to conduct interviews with the mothers in their home or at a location that was convenient and comfortable to them and ensured privacy. Interviews lasted approximately two hours. Mothers were offered department store gift cards to compensate them for their time and sharing their experiences. The interview protocol consisted of a series of demographic (e.g., mother's age, education level, household structure) and health-related questions from standardized instruments (e.g., CES-D 10; self-rated health; access to health care and insurance). Mothers' height and weight were measured in order to compute body mass index (BMI), an indicator of physical health that is positively correlated with several chronic diseases (Ogden et al., 2014). The interviewer also asked mothers a series of open-ended questions related to

children's eating patterns and feeding a family, and audio recorded mothers' responses.

Survey Findings

On average, mothers had lived in the United States 13 years and were 33 years old. The large majority (86%; N=98) of the mothers were either married (57%; N=98) or living with a partner (29%; N=98). Approximately one-third of the mothers (32%; N=98) had earned a high school diploma or G.E.D, and one-third (33%; N=98) had received less than an eighth-grade education.

When mothers were asked to rate their health, less than one fifth of mothers (18%; N=98) reported that their health was excellent or very good, and over half (59%; N=98) reported that their health was good. A quarter of the mothers (25%; N=98) stated that their health was fair or poor. One fifth of the mothers (20%; N=98) stated that they had been told by a healthcare provider that they had heart disease, diabetes, asthma or another health condition, and slightly more than one fifth of the mothers (21%; N=98) stated that they had an undiagnosed health condition. Body mass index measurements indicated that the majority of mothers were overweight or obese (44%, N=98; 35%, N=98 respectively) and one fifth (21%; N=98) were normal weight. Analysis of mothers' responses to a short form of the depressive symptomology scale (CES-D 10, Andresen, 1994) revealed that while mothers' scores ranged from 8 to 30, on average (M=14) mothers experienced high rates of depressive symptomology (a score of 10 or higher).

Close to half of mothers (49%; N=98) reported that their child's health was excellent or very good and over a third (37%; N=98) reported that their focal child's health was good. One sixth of the mothers (16%; N=98) reported that their focal child's health was fair or poor. While over half (56%; N=98) of the mothers reported that their focal child had not been diagnosed with a health condition, a little less than half (44%; N=98) of the mothers reported that their focal child had been diagnosed with one or more health conditions such as diabetes, asthma,

allergies (1 condition- 20%; 2 conditions- 9%; three conditions- 15%).

While over half of the mothers (53%) reported that they had a regular health care provider, less than one fifth of the mothers (18%; N=98) reported that they had health care insurance. Public health clinics were a main source of medical care for mothers (41%; N=98). The majority of focal children had health insurance (75%; N=98). While 1 out of 4 households were food insecure (26%; N=98) (Life Sciences Research Office, 1990), the majority of households were food secure (74%; N=98). The majority of mothers' households participated in a federal food assistance program (e.g., Free or Reduced Priced School Meals – 78%; N=98; Supplemental Nutrition Assistance Program, SNAP – 52%; N=98; Supplemental Nutrition Assistance Program for Women, Infants, and Children, WIC – 53%, N=98).

Findings from Open Ended Questions

Mothers perceived themselves as the keepers of their children's healthy eating patterns. Mothers expressed that one of their main roles was to select and prepare food while making sure that their children were eating fresh, healthy and homemade food (Greder, Romero, & Doudna, 2012). However, mothers encountered several challenges while trying to fulfill their role. Some of these challenges included: 1) high prices for what they considered freshly grown or produced food and food that did not contain preservatives, 2) lack of availability and variety of freshly grown produce or butchered meat, and 3) lack of time to prepare and cook food as they desired. Additionally, mothers recognized changes in their family's eating patterns since they had moved to the U.S., and stated that foods served at school negatively influenced their children's food preferences.

Focus Group Interview Findings

Findings revealed that Latina immigrant mothers wanted to interactively participate in educational programs - they wanted to "learn by doing" and share knowledge and skills with each other.

Mothers expressed feelings of isolation, and strongly desired to meet as a group on a regular basis to share, discuss, and broaden their information and skills that could help them and their family members to be healthy. Mothers expressed interest in learning more about how to grow food and herbs in their new community, cook with less oil, and have foods served at school be more “fresh” versus canned, frozen or packaged. Mothers wanted to serve some of their traditional food dishes at home and want their children to desire and eat traditional cultural foods versus wanting “American” foods (e.g., pizza, hamburgers, chicken nuggets) at home. Some mothers expressed interest in learning basic cooking information and skills.

Additionally, mothers stated that they were not as physically active as they would like to be. In their home country, physical activity was built into their daily activities. Many mothers stated that they needed to plan to go places as they had to find someone who would take them (e.g., when husband returned home from work with the car, a friend who had a car) and many places are too far to walk to or are unsafe to walk to because there are no sidewalks. Mothers said that if there is not a sidewalk they walk along the streets to go somewhere, but are not able to do this in the winter because of the snow and ice on the street. Mothers stated that they would like to learn about places they can go in the community to be physically active as a family that are low or no cost. They said the community swimming pool was too expensive so they take their children to the creek to swim. Mothers also shared concerns about accessing healthcare in the community. They do not feel comfortable going to the health clinic in the community. Mothers want to learn more about where and whom they can go to in the community for information and resources to help their families.

Workshops to Improve Latino Family Health

Design and Implementation

The individual and focus group interview findings were used to inform the development of a series

of health focused workshops for Latina immigrant mothers that would be culturally relevant and seek to improve the health of mothers and their family members. As shared above, there was inconsistency between how mothers rated their health and their children’s health, and the prevalence of diagnosed and undiagnosed health conditions, as well as a high prevalence of overweight and obesity among the mothers. The mothers served as the main caregivers for their family’s health (Greder, Romero, & Doudna, 2012), yet the majority of them had low levels of education and limited access to health care, both of which are barriers to health education and prevention. Designing educational opportunities to assist mothers in gaining knowledge and strengthening skills, as well as connecting to community resources may be an effective method to improving the health of the mothers and their children.

The health-focused workshops are designed to offer the mothers a space where they can reduce feelings of loneliness and isolation by developing relationships with other mothers and family serving professionals. The workshops also seek to expand mothers’ knowledge and skills related to accessing health care resources, growing food, preparing traditional cultural food dishes in healthier ways, maintaining cultural foods in their family’s diet despite new demands on family time, responding to changing child food preferences, and incorporating inexpensive, enjoyable family activities that involve physical activity into routines at home and or in the community.

The material and content of each workshop is a cultural and linguistic adaptation of educational materials developed by Iowa State University Extension and Outreach and the Food and Nutrition Service within the United States Department of Agriculture. It also includes key concepts and strategies promoted in “Abriendo Caminos”, a nutrition and health focused curriculum developed for and tested with Latino immigrant families (Hammons, Wiley, Fiese, & Teran, in press). (See Appendix A: Workshop topics). The health-focused topics are addressed using elements of the facilitated dialogical method used in the Formando Lazos Familiares Project:

Preventing Domestic Violence in Latino Immigrant Communities at the University of Wisconsin-Madison (Available at <http://searchwisconsinidea.wisc.edu/projects/profile/1300>).

Workshop Structure

Each workshop is designed to be 90 minutes in length, occur twice a month, and be embedded as part of an existing program in the community that successfully engages Latina immigrant mothers. Each workshop includes the following components: 1) introduction to the topic, 2) key concepts and strategies, 3) application of concepts through an interactive activity, 4) group discussion of personal, family and community assets and limitations to incorporate information and strategies into daily living, 5) demonstration and practice of a physical activity to incorporate into daily living, 6) review of information, strategies and goal setting.

During the first workshop, mothers are asked to bring a small food dish from their home country to share with others in order to help mothers get to know each other and to learn about the foods and traditions of mothers' home countries. Mothers are asked to share information about the dish they brought (e.g., how the dish is prepared, ingredients in the dish, why they chose to bring that specific dish). During the workshop, time is spent tasting the dishes and learning more about the country and town/city where each mother is from, as well as information they want to share about their family.

At the end of each workshop, a name of one of the mothers is drawn from a box in order to award a "prize" to a participant. Prizes are related to concepts addressed or information shared in each workshop (e.g., Zumba DVD, food ingredient to substitute in a recipe for saturated fat, seeds to grow herbs, vegetables).

Additionally, at the beginning of the workshop series mothers are given a small notebook to record 1-2 goals at the end of each workshop that they want to work on between workshops. The goals can be nutrition, physical activity, or mental health focused. Mothers are informed to record notes in their note-

books over the next two weeks about situations they encounter that help them or get in the way as they work towards their goal(s). During the next workshop, mothers are paired in groups of two or three and asked to share information they want to with each other regarding their goals (e.g., what the goal is, steps taken, barriers and enablers in reaching their goals). Mothers are asked to listen to each other and verbally reflect back what they heard each other say. If a mother wants, she can request other mothers in the small group to share ideas that they think may help her reach her goals.

Evaluation

During the first workshop, mothers complete a survey that contains questions related to mothers' attitudes and knowledge regarding nutrition, mental, and physical wellness. Mothers complete the survey at the end of the workshop series as well. Pre and post survey responses will be compared to identify information gained or attitude changes.

During the week following each workshop, mothers are contacted by phone by one of the workshop facilitators and asked to respond to 2-3 questions related to application of information shared at the previous workshop. Mothers' responses are recorded by the facilitators and used to document behavior change, as well as further inform the development of the workshop series. Additionally, a focus group interview is conducted with mothers towards the end of the workshop series to gather data regarding information shared during the workshop series that mothers perceived as useful, new or modified behaviors mothers have implemented related to workshop topics, additional information or experiences mothers would find useful to assist them in improving or maintaining their own health or health of their family.

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APPENDIX A Workshop topics

Workshop 1	<p><i>Healthfully preparing traditional cultural foods</i></p> <ul style="list-style-type: none"> -Hands on activity: cooking traditional foods with less sugar and less fat or “healthy” fat and less salt and using whole grains. -Physical activity: Indoor games to play with children e.g., Twister -Goal setting
Workshop 2	<p><i>Planning ahead for family meals and snacks</i></p> <ul style="list-style-type: none"> -Hands on activity: Planning healthful meals and snacks -Physical activity: Zumba -Goal setting

Workshop 3	<p><i>Advocating for family food wants and needs</i></p> <p>-Hands on activity: During a facilitated discussion, mothers share their desires and needs with school personnel (e.g., superintendent, food service staff) regarding foods served at school. -Physical activity: Jump rope games with children -Goal setting</p>
Workshop 4	<p><i>Growing food</i></p> <p>-Hands on activity: Preparing container food gardens -Physical activity: Stretching -Goal setting</p>
Workshop 5	<p><i>Identifying sources of stress and support</i></p> <p>-Hands on activity: Family Circles Assessment activity -Physical activity: Yoga -Goal setting</p>
Workshop 6	<p><i>Advocating for culturally responsive health care</i></p> <p>-Hands on activity: During a facilitated discussion, mothers share their desires and needs related to health care with community health care professionals -Physical activity: Folk Dancing -Goal setting</p>
Workshop 7	<p><i>Identifying low cost, fun activities to do as a family at home and in the community</i></p> <p>-Hands-on activity: Creating a traditional cultural craft with children -Physical activity: Relaxation exercises -Goal setting</p>
Workshop 8	<p><i>Simple, low cost ways to preserve fruits, vegetables and herbs</i></p> <p>-Hands on activity: Preserving foods and herbs -Physical activity : Zumba with kids -Goal setting</p>
Workshop 9	<p><i>Exploring community resources: services and programs</i></p> <p>-Panel: Local resource people who represent various family and youth serving organizations -Physical activity: Stretch bands -Goal setting</p>
Workshop 10	<p><i>Fiesta Celebration: Traditional healthy cultural food dishes, music and dancing</i></p> <p>-Physical activity: Traditional folk dances -Goal setting</p>