

Finding the Disconnect: Infant Feeding Practices in Guatemala

Project Proposal

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Introduction: Childhood and infant nutrition is a major initiative worldwide as millions of children die each year of malnutrition and malnutrition related causes. The World Health Organization estimates to that thirty percent of children under the age of five are stunted due to poor feeding practices and infection (Nutrition, 2011). Improved infant feeding practices has been shown in a growing body of research to be a major contributor to child survival and overall nutrition. As an example, breastfed infants have been shown to have better survival, growth, and development rates than those who are formula-fed infants (Martin, 2008). Maternal antibodies and the overall composition of Breastmilk are far superior to any infant formula to provide the infant with the nutrition needed to survive infection and disease. In many countries where access to a clean water source to mix with formula, or in situations when the formula is diluted in order to make it last longer, infants are at even higher risk due to formula feeding. Many countries in South and Central America infant feeding practices are as diverse as its people. In some cases, for example, socioeconomic status seems to be an indication of duration of breastfeeding, whereas in other places, access to prenatal care has a larger impact regardless of status. In an observational study of eight countries in Latin America, mothers who were of higher socioeconomic status breastfed longer than the poorer mothers in Guatemala and Haiti (Lutter, 2011).

“Guatemala has the highest rates of childhood malnutrition in Latin America.” Forty-two percent of children under the age of three are chronically malnourished (Dearden, 2002). In order to bridge the gap between those in Guatemala who are breastfeeding and those who are not, there have been great efforts by many nonprofit organizations to educate mothers of the importance of breastfeeding to the overall health of their children. It is discouraging that despite the hard work of these organizations, the percentage of exclusively breastfed infants under five months old remains low. More research is still in need to show the possible causes of why education and intervention in this country have not seen better rates of change. Possible reasons may include limited access to educational materials and outreach programs, lack of time for working women to comply with recommendations, and/or continuation of harmful cultural practices. In eastern Guatemala, some rural villages show alarming percentages of underweight, wasting, or stunted children of 60%, 40% and 80% respectively. Women in these villages continue to practice a custom which feeds infants juice and oil-based beverages starting the day it is born, and then supplemented with breast milk after the first day. This practice follows the belief that newborns should not have breast milk until after the first day of life (Diagnostic: Assessing the Food and Nutrition Situation in Rural Guatemala, 1996-2004). The need for continued outreach and education in rural populations is still highly prevalent. Culturally appropriate educational materials and tools still need to be developed to increase effectiveness. However, before these tools can be created, there needs to be a better understanding of why current efforts have not been more effective. The objective of this study is to analyze and identify cultural views on infant feeding practices by observing focus group discussions of Guatemalan mothers from multiple regions throughout the country. The goal is to see La Leche League, UNICEF and other local health groups create educational materials that are better fitting to regional disparities regarding infant feeding practices using the information that results from the focus groups.

Rational: Despite great efforts by organizations such as La Leche League, National Commission on Breastfeeding (CONAPLAM), UNICEF, and others, Guatemala infants under six months old are still less than 50% exclusively breastfed (UNICEF website).

Approach: Methods

Upon arrival to Guatemala, City, Guatemala, researchers will have a week-long conference with their contacts from UNICEF and La Leche League to introduce them personally and communicate logistics and common interests and undertakings of the project. The researchers will go to each department to hold focus groups in the following order: Guatemala City, Esquintla, Huehuetenango, Izabal, and Jutiapa. There will be two focus group discussion facilitators who will go as a pair to each location. Local Partners in each of the five regions will take a total of five months, allowing for four weeks per region. Upon arrival, the researchers will have weekly meetings with the local partners specified later in this paper (Refer to Key Personnel and Responsibilities section page 5). Researchers will spend time acclimating to the region and making connections with local groups as appropriate. Education materials and other region-appropriate incentives will be created at this time in collaboration with local partners. Recruitment period will be for five months, allowing one month per location. This time will allow recruiters to make and distribute recruitment fliers, go door-to-door in communities, and/or recruit individuals by visiting local health organizations. Focus groups will be held over the course of ten months, allowing two months per region with one group meeting per week. At the end of the last focus group in Jutiapa, researchers will return to Guatemala City where they will have a debriefing with UNICEF and La Leche League members for a final week-long conference. This time will be to discuss successes and limitations, as well as preliminary findings. Researchers should be allowed two travel days for each of the seven trips for a total of fourteen travel days. Focus group discussions will be systematically transcribed and coded over the course of fourteen weeks. Results from this analysis will be translated from Spanish to English and the writing of the manuscript will be written and revised in the remaining three months. The total time is twenty-four months. Please see Table 1 for the timeline.

Subjects will be recruited using fliers, by going door to door in communities, and through local health organizations. Local Partners will aid in region-specific determination of the method of recruitment that will be the most appropriate. With the help of volunteers and local partners, recruitment should be feasible in the time allotted. Each of the five departments: Huehuetenango, Izabal, Guatemala, Esquintla, and Jutiapa will have two focus groups. Each focus group will have ten women. Inclusion criteria are female mothers who have lived in the department for at least five years and have at least one child under the age of ten. After recruitment, the women will be randomly assigned to one of the two groups in their region. Focus groups will be recorded using video and audio tape with the permission of the participants.

Focus groups will be facilitated by two bilingual graduate students who have a background in Nutrition, Psychology, or Anthropology. Groups of ten women will meet in a community building. Preferably, the location will have one large circular table so that each of the women can sit with equal spacing around the table to eliminate any bias that may result from women sitting in different chair sizes or heights, which may create feelings of discomfort or inequality. A meal will be provided for each of the eight meetings per region so that a sense of camaraderie can be established before the commencement of each discussion. Culturally appropriate meals will be prepared by volunteers associated with the local partners in the area. Each focus group should allow for two hours, including meal time. This time limit may not be long enough, depending on how long participants take to eat meals and how effective the facilitators are with keeping the group focused. At the end of each session, incentives will be given to each

participant. These incentives may be in the form of gift certificates, food, or other forms, depending on the region and will include region-specific educational materials for child and infant feeding and health. The following topics will be used by the facilitators to lead the discussion which will follow the mealtime.

Focus group topics

Breastfeeding knowledge

- What is your view on the importance of breastfeeding?
- How long do you think is the appropriate duration to breastfeed?
- Do you think that breast milk is enough to feed and nourish an infant?
- At what age do you think that foods or drinks should be added to the infant diet
- Does your community have a program that educates women about breastfeeding?

Maternal confidence

- How much control do you think you have over the overall improvement of your child's health
- How long did you breastfeed your children? At what age did you introduce other drinks
- Have you ever spoken to a health educator or professional about infant feeding? If so, who was it and how did you feel about the information received? How did you hear about them? Did you follow the suggestions given? Would you recommend other mothers to go to them?

Opinion

- What barriers do you see between healthcare providers and the public?
- What could the programs in your community do to Increase health promotion outreach?
 - Do you want to see more involvement in programs such as UNICEF and La Leche League in your community? If so, do you have any suggestions that you think would help these programs improve?
 - What are the problems with the way the health education system is set up in your community?

Expected Outcomes: Expected outcomes of the focus groups is for health and nonprofit organizations such as UNICEF and La Leche League to enhance knowledge by creating education materials, changing the attitudes and beliefs of Guatemalans toward breastfeeding, develop methods in regional breastfeeding education, and improve cultural and situational awareness. Conditional improvements to health promotional materials and programs will focus on child wellness and nutritional status, growth and mental function, reduced childhood morbidity, and quality of life for mothers and children through self-empowerment of nutrition education. Actions which will follow this study will be the creation of educational materials that are better fitting to regional disparities regarding infant feeding practices, the application of breastfeeding knowledge, increased national average of duration of breastfeeding, maternal confidence to improve health of her child, youth empowerment through knowledge to make healthy decisions for their future children, and increased health promotion outreach to more rural communities.

Monitoring and Evaluation:

Qualitative data will be systematically coded using principles of grounded theory (Borgatti). Recordings of the focus groups will be categorized and key words, phrases, and categories will be organized into groupings and transcribed for analysis using the software Nvivo9. The results of this analysis will then be translated from Spanish to English. The manuscript will be written in English and translated back into Spanish so that all of the related materials and final report will be able to be disseminated in both the United States and Central America.

Result Dissemination:

UNICEF, La Leche League and other local programs will receive results of this study following the approval and publishing of its manuscript. Comprehensive educational advice and proposed programs will be included in the discussion of the manuscript. The intended results of this study is for these groups who are already immersed in Guatemala to improve current educational materials and tactics, create new programs, and strengthen regional and cultural awareness through the education and empowerment of its people.

Discussion:

Travel arrangements and setbacks for the researchers may pose potential problems as they will have to utilize multiple forms of transportation to navigate to remote regions of a foreign country. A detailed logistical plan must be put into place and tight communication with our local contacts must be maintained in order to ensure the safe arrival of the research team to each of the five locations in Guatemala, and finally back home to the United States. Because Guatemala is a developing country, where political uprisings and protests are not uncommon, researchers will register in the Guatemalan embassy “Smart Traveler Enrollment Program” prior to departure (Guatemala Country Specific Information, 2011). This way, they will be kept abreast of important security and safety information regarding their destinations prior-to and during travel. Upon arrival to one of the departments, it is possible that a local partner cannot be reached or has become unavailable to serve as a contact for the project. Secondary contacts will be found for each location prior to departure and tight communication will be maintained with each partner prior to travel to each location. If contact cannot be made prior to travel, the trip will be postponed until contact has been maintained for the safety of the research team.

By design, there are a few limitations to this study. Focus groups introduce bias to the participants because there may be some participants with a greater inclination to voice their opinions than others. Structure of group discussion should be maintained and closely monitored by the facilitator so that each participant may voice their true opinion and no one person should be permitted to dominate the conversation for more than an appropriate time allotment. The atmosphere should be maintained as objective and open as possible with an attitude of openness to all opinions, thoughts, and questions in order to promote dialogue between opposing viewpoints. Language and cultural barriers will be a challenge. Child and infant feeding is a culturally sensitive topic and efforts should be made to remain open to cultural differences and promote discussion and dialogue between women who come from different cultural and religious backgrounds. Historically, cultural practices have been highly secretive and only discussed within a group (Menchu, 1999). This may cause some women to be apprehensive to open up about their own beliefs and practices. The total time allotment of twenty-four months may pose

as a limitation. Two years may not be enough time to hear and evaluate all of the opinions and viewpoints that we need in order to effectively conclude the disconnect between current infant feeding promotion and the high prevalence child malnutrition and insufficient infant feeding practices seen in Guatemala. This project is dependent on a substantial amount of funding. Although the proposed methods rely heavily on dedicated volunteer and graduate student personnel who are experts in living on a budget, this project cannot proceed to its full potential without sufficient funding of our generous stakeholders, and grants from local and federal governments.

Key Personnel and Responsibilities

Project Investigator: Janelle Morris, a graduate student in Food and Nutrition Science at California State University, Chico, will design and oversee research activities and operations by maintaining close communication and control over the progress; translate materials English to Spanish; conduct qualitative analysis; write manuscript for project results.

University Researchers: 2 California State University, Chico Graduate Students from the departments of Nutrition Science, Psychology, Latin American Studies or Anthropology. Spanish fluency will be a requirement. Facilitate focus groups in each region.

Dietitian: Michelle Masa, MS RD will aid researchers in the formation of educational materials that will be created to give to focus group participants in addition to other incentives.

Anthropologists: Georgia Fox, Graduate Coordinator of the Anthropology Department at California State University, Chico. Advise researchers pre and post study on the anthropologic factors to take into account for regional and cultural factors to consider when interpreting data.

Project Director: Keiko Goto, PhD, Associate Professor of Nutrition and Food Science Department at California State University, Chico will direct and support the Project Investigator and revise research design, methods, and final manuscript.

Partner Agencies: UNICEF and La Leche League: Provide expertise from years of experience working within the Guatemalan culture in regards to infant and child feeding practices

Local Partners:

Huehuetnango: Save the Children: Felix Aguilar Ramirez, a local health worker in Huehuetenango, has been emersed in the rural Western highlands working with indigenous populations. He is experienced with the health issues and day-to-day struggles such as diarrhea, malaria, and pneumonia that are affecting toddlers and infants in the area. He will act as a contact and provide logistical, cultural information, and facilitate recruitment of individuals for focus groups for researchers going to Huehuetenango (Link for Health, 2010).

Izabal: Oxfam International: Elyada Mejia, a human rights activist has been working against social injustice in the Izabal region and is experienced working within the community and in the political arena. She will be able to act give researchers logistical and cultural support, and provide invaluable information regarding some of the political and socioeconomic setbacks that the people in this area experience that may affect nutrition and feeding practices. They will also facilitate recruitment of individuals for focus groups (Hufstader, 2008).

Guatemala City: Planned Parenthood Federation of America in Guatemala has been working in Guatemala on various health and human rights issues with women and families. They will have access to facilities and other logistical needs of researchers. They will also facilitate in the recruitment of individuals for focus groups and aid in navigation through the large, densely populated city (Guatemala Country Program, 2011).

Jutiapa: Dr. Carlos Eduardo Damas Damas, an associate with Auxilio Rural Integral, will be the head contact for the Jutiapa region. Auxilio Rural Integral is a nonprofit organization with professionals working in medicine, law, education and commerce and will have access to people and services that will be useful to researchers going to this region. They will facilitate recruitment of individuals for focus groups (Auxilio Rural Integral de Jutiapa).

Esquintla: Vamos Adelante is a program working in the region of Equintla to promote health, sanitation and child education. They will be the contact for researchers going to this region to provide logistical and cultural support and information (Adelante).

Table 1: Basic Flow chart of Procedures

Activity	Time
U.S. to Guatemala City (G.C.)	2 days
Initial Brief G.C.	1 week
Local partner meetings G.C.	4 week
Recruit	1 month
Focus Groups (FG)	
G.C. to Esquintla	2 days
Local partner meetings Esquintla	4 week
Recruit	1 month
FG	
Esquintla to Hue.	2 days
Local partner meetings Hue.	4 week
Recruit	1 month
FG	
Hue to Izabal	2 days
Local partner meetings Izabal	4 week
Recruit	1 month
FG	
Izabal to Jutiapa	2 days
Local partner meetings Jutiapa	4 week
Recruit	1 month
FG	
Jutiapa to G.C.	2 days
Debrief G.C	1 week
G.C. to US	2 days
Data Analysis	26 weeks
Manuscript	3 months



Figure 1: Guatemala separated into the 22 departments

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