

Adherence to young child feeding guidelines in four countries in Latin America and the Caribbean

Program 848.9



Patrick J. Whelton¹, Edward A. Frongillo¹, Mandana Arabi¹, Helena Pachón¹, Chessa K. Lutter²

¹Division of Nutritional Sciences, Cornell University, Ithaca, NY 14853

²Pan American Health Organization, Washington, D.C. 20037



Abstract

Child feeding behaviors such as timely introduction of complementary foods have been linked to positive growth and health outcomes in children around the world. Recently, the World Health Organization (WHO) has crystallized these care-giving behaviors into guiding principles and advised caregivers across the globe to follow them. There are little empirical data available, however, concerning the actual practice of these principles. An understanding of everyday child feeding practices in developing nations could aid in focusing future interventions. In response, the Pan American Health Organization conducted a multi-center study in Latin America and the Caribbean in 2002 to determine the current state of young child feeding practices. Using the ProPAN methodology, the WHO guiding principles were operationalized into 13 ideal practices that were observed among caregivers and children 6 to 24 mo in Brazil, Jamaica, Panama, and Mexico. Adherence to the 13 practices was measured in two urban sites in each country. Substantial differences across the four countries for each ideal practice, and for their determinants, were observed. For example, the percentage of caregivers that motivated their child to eat to satiety was 25, 28, 35, and 62, respectively. These results suggest that policy and programmatic actions that aim to improve adherence to ideal practices should differ depending upon the profile of practices in each country. Funded by PAHO.

Justification

Two of the most important aspects of child nutrition are breastfeeding and complementary feeding. Complementary feeding is important because breast milk alone does not supply enough energy and nutrients to infants older than six months. Improving complementary feeding is necessary to lower infant and young child mortality and promote child development, and is the most important challenge currently facing the global community of nutritionists. In response, the *Guiding Principles for Complementary Feeding of the Breastfed Child* were published to guide policy and action at global, national, and community levels. It now becomes possible to observe the degree to which caregivers in developing nations adhere to these guidelines.

Objectives



- 1) describe the outcomes when guidelines and recommendations were operationalized for research purposes
- 2) observe how these operationalized guidelines were practiced in four countries and if differences in adherence emerged
- 3) identify relationships between adherence to guidelines and explanatory variables.

Methods

This study was conducted using ProPAN methodology. Surveys and interviews pertaining to infant child feeding behaviors were conducted in two sites each in Brazil, Jamaica, Mexico and Panama. 637 participants were surveyed, with about 155 participants per country.

The 13 ideal practices (shown below) were grouped and organized into categories according to common themes. Five categories were created and converted into indices as follows.

Breastfeeding initiation

- 100% of children are breastfed for the first time within the first hour after birth
- 100% of children are not fed with pre-lacteal feeds
- 100% of children receive colostrums

Breastfeeding duration

- 100% of children are exclusively breastfed until 6 months of age
- 0% of children are weaned before 24 months of age

Complementary feeding initiation

- 100% of children begin complementary feeding at 6 months with semi-solid foods

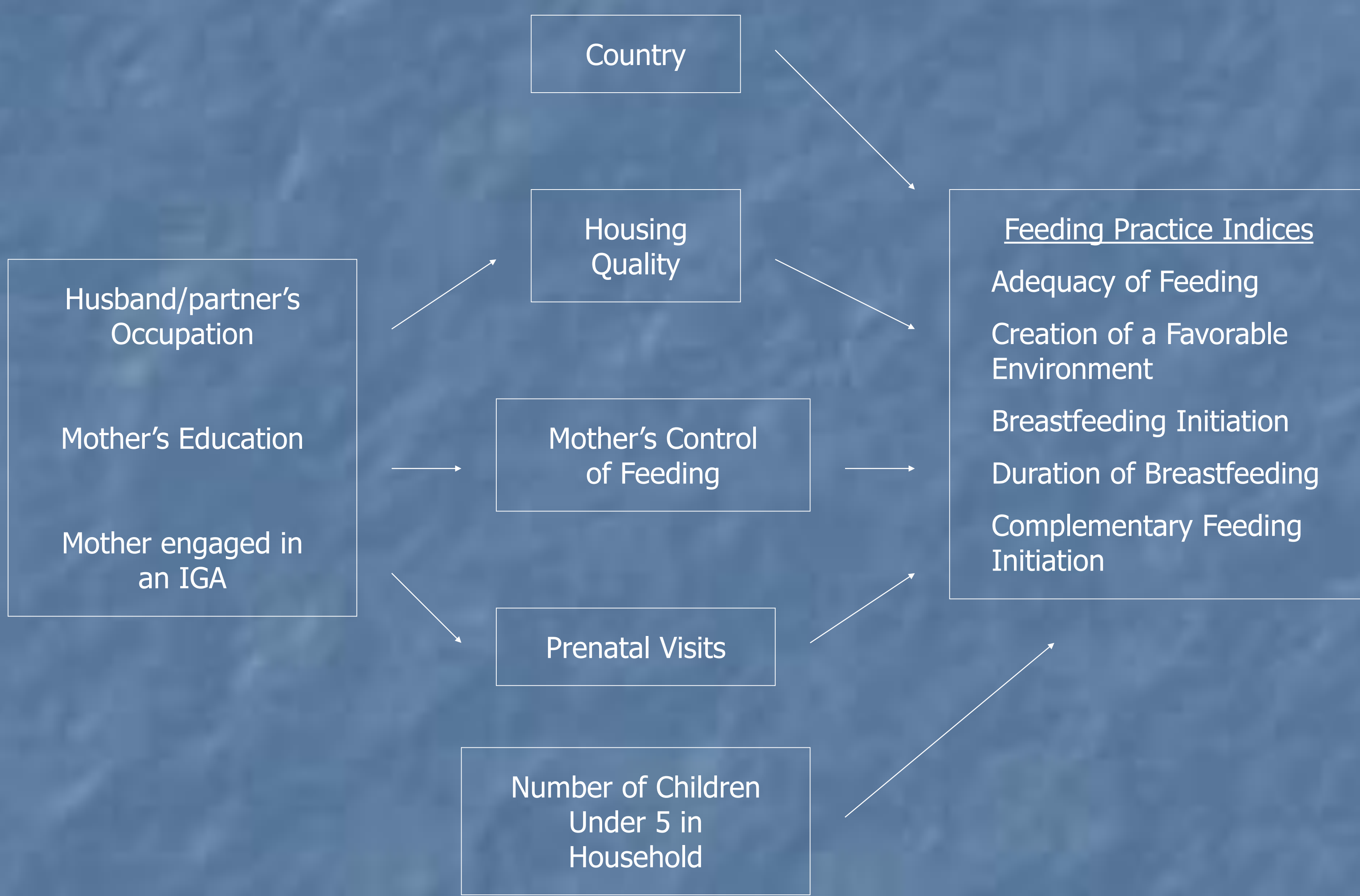
Creation of a favorable environment

- 100% of children are breastfed on demand, during the day and night
- 100% of children receive support during meal times and are motivated to eat to satiety
- 100% of children are fed with their own plate

Adequacy of feeding

- On average, children meet their daily recommended energy intake
- 100% of children are fed nutrient- and energy-dense foods
- 100% of children are fed with daily recommended number of meals
- 100% of children are fed at least one daily food source of meat, poultry, or fish

Adherence to each practice was given a numerical value and the values within each category were summed to create an overall score. The five child feeding practice indices and the associated scores were analyzed using a regression model that incorporated the full conceptual framework shown below.



Results

Significant differences in adherence to the ideal practices between the four countries studied occurred as shown below.

Figure 1: Breastfeeding on Demand

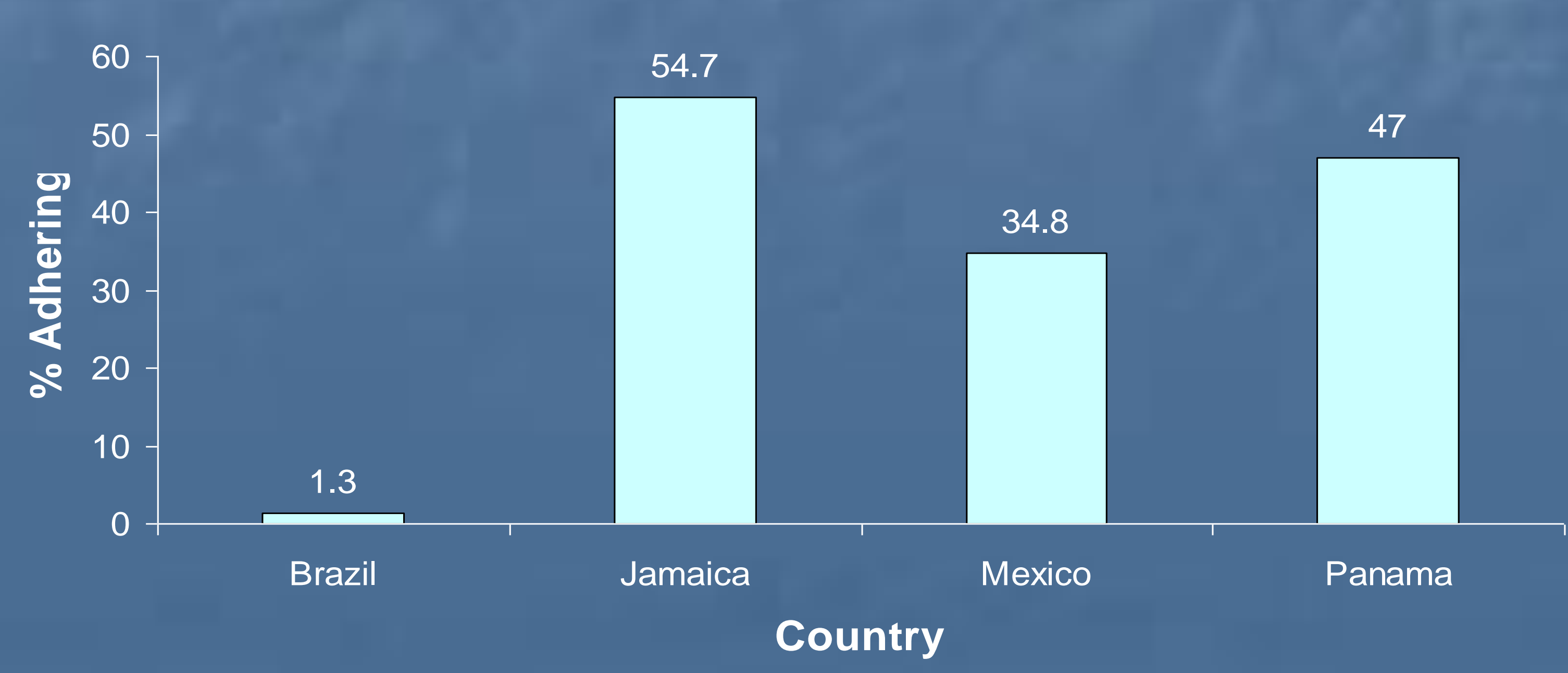
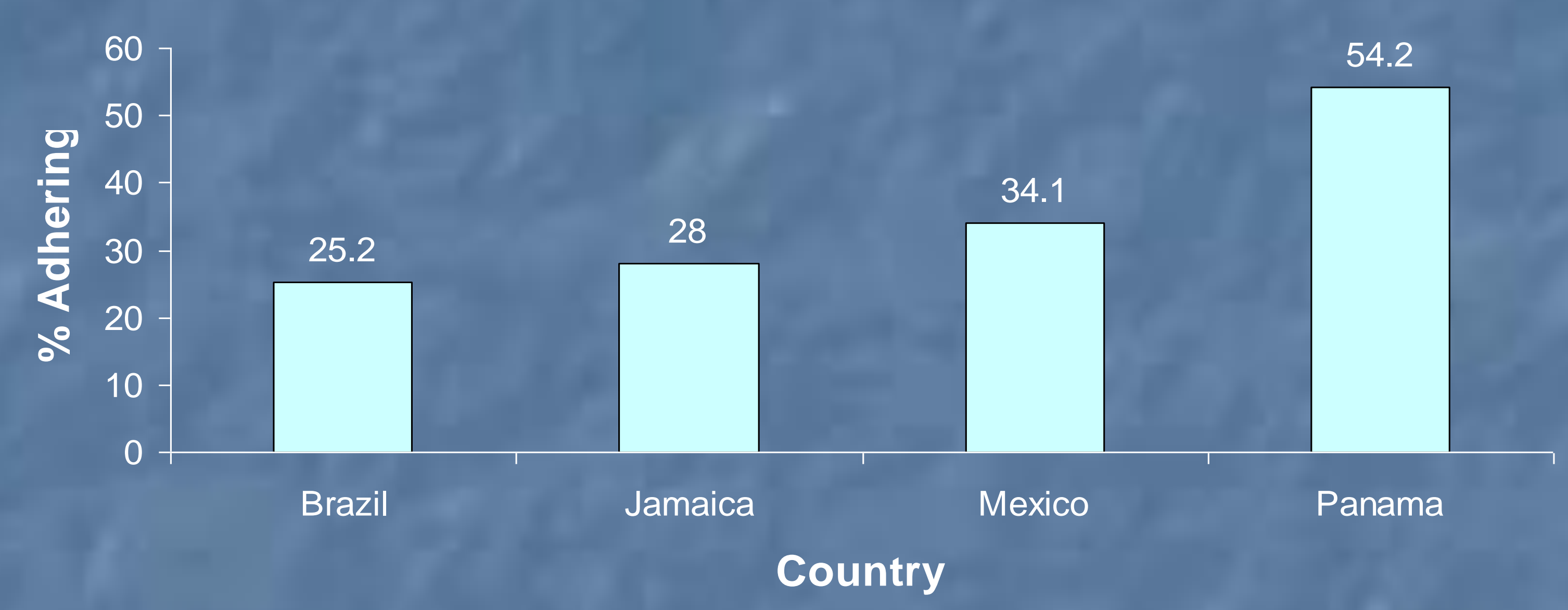


Figure 2: Child Receives Support/Motivation to Eat to Satiety



Regression analyses of the explanatory variables yielded information on the determinants of child feeding index scores. For example, a mother's control of feeding (whether she decides what the child eats and actually feeds the child) was significantly associated with her level of education. The odds of a lower amount of control of feeding increased 7.5 times for mothers with no schooling compared to mothers with the highest level of education ($p = 0.01$). Mothers with intermediate levels of education were also less likely to have control over feeding compared to the mothers with the highest level of education ($OR = 2.16$ and 2.40 , $p < 0.05$). There were also significant relationships between a participant's country of residence and the feeding practice index scores. When complementary feeding initiation scores were analyzed with binary regression, mothers in Brazil, Jamaica, and Mexico were at 5.64, 2.13, and 2.58 times greater odds to have a lower score for initiation of complementary feeding ($p \leq 0.01$).

Conclusions

Survey participants from Panama appeared to meet the requirements for ideal child feeding practices more often than any of the other three countries in the study. Respondents from Brazil appeared to be the least likely to be meeting the ideal practices for child feeding. Much work is still needed to improve child feeding practices to achieve desired child growth and development outcomes.

These findings imply that there are many differences in child feeding practices and the factors that influence them among Latin American countries. Such differences mean that organizations planning interventions or research projects in relation to child feeding in Latin America need to recognize that there is great variety in feeding behaviors practiced depending on the country. The forces that determine these behaviors and practices may also vary from country to country. This is a reminder that a variety of factors need to be taken into account when planning research or interventions.

Contact Information

Patrick Whelton – pjw25@cornell.edu