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**IDENTIFICATION OF MOTIVATIONS IN PARTICIPATING MOTHERS OF THE HEALTHY CHILD, HEALTHY ADULT PROGRAM WHO PROMOTED CHANGES IN EATING HABITS**

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Nutrition in the prevention and treatment of chronic diseases

**Background:** Culturally, In Mexico, mothers are the responsible ones to raise children, provisioning of food, and establishing nutritional practices. In a country with a high prevalence of overweight (OW) and obesity (OB) in infants (33.2%) there is a need to implement educational interventions focused on providing knowledge, skills and tools that encourage mothers to change their children habits, an example of this is the program Niño sano, adulto sano (Healthy Child, Healthy Adult). The objective of the study was to identify the motivations that allow mothers to make changes in eating habits in their children.

**Methods:** From January to June 2018, Niño sano, adulto sano program was implemented in a low-setting community in Querétaro, Mexico. Once the program was concluded, three semi-structured group interviews were carried out (July 2018). They were audio recorded, verbatim transcribed, categorized and analyzed by narrative.

**Results:** The interviews (63:03; Min 55: 53- Max 67:30 minutes) were developed with ten women (37 ± 5 y). Two categories were obtained from the analysis: El aliciente de mamá (Mom's incentive), related to self-motivation, and Mamá en acción (Mom in action), related to their implemented activities.

Mothers identify the well-being of their children as an objective and stimulus to learn strategies to improve their eating habits, for example: due to difficulties in vegetable consumption, their attention was focused on the preparation and inclusion of cooking recipes with a greater amount of fruits and vegetables in the usual menu. In addition, due to their family role, they consider themselves responsible for changes in children, and they implemented actions to encourage the consumption, for example, of simple water with customizable bottles or to eat rejected vegetables through creative songs.

**Conclusion:** The identification of the motivators, as well as the participant's actions implemented to change the eating habits of their children, allows to focus actions for achieving mothers' main objective.

**Conflict of Interest:** None

**Keywords:** Nutrition education/ prevention obesity/motivators/mothers

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**DEVELOPMENT OF CALCIUM RICH SOLUTION FROM EGG SHELL**

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Safe, healthful and sustainable food

**Introduction:** Egg is considered of great nutritional value due to its macro and micronutrients composition. Eggshell represents about 11% of the egg's weight. It is usually discarded regardless of its high calcium content, which could be considered a valid resource to enrich human's diet. Calcium can be extracted to elaborate functional foods and contribute to a better population health and wellness.

**Objective:** To develop a calcium rich solution from eggshell and lemon juice, to be applied in gluten and lactose free cookies, and evaluating its organoleptic and nutritional quality.

**Materials and methods:** The calcium rich solution was extracted from eggshells by maceration with lemon juice during different times: 20 and 120 minutes. Calcium concentrations were determined in both solutions using SMEWW - APHA 3111-B technique. Cookies were prepared with gluten free flour, adding the 120 min solution. Consumer acceptance in appearance, color, flavor, odor, and texture of cookies were evaluated amongst 116 untrained participants, using a 9 points hedonic scale. Two types of cookies were tested, with and without the calcium solution. Data were analyzed by ANOVA and LSD Fisher Test,  $\alpha=0.05$ .

**Results:** The solution extracted during 120 min from eggshells had the highest calcium content (348mg per 100mL). Enriched cookies were preferred by most of the consumers (84%) and significant differences were found in texture and flavor attributes. Most of the participants indicated they would include these cookies in their daily diet, even the ones with celiac disease and lactose intolerance.

**Conclusion:** It is possible to obtain a calcium rich solution from eggshells by selecting, sanitizing, separating, crushing and resting them in lemon juice, in order to enrich food products. Enriched cookies are a good alternative for the general population's nourishment.

**Keywords:** Eggshell/ calcium/ acceptability/ cookies  
The authors report having no conflict of interest.