RESEARCH ARTICLE

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# ANALYSIS OF FOOD CONSUMPTION IN BOYS AND GIRLS IN THE LOCALITIES OF NUEVA JERUSALEM AND TIHOSUCO, QUINTANA ROO

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### **Abstract:**

There are many countries that face bad child nutrition around the world, specially undeveloped countries. Bad nutrition could be to different components as poverty, bad information about good feeding and to the facility in consumption toultraprocessed food. Good nutrition in children can help to excellent physical and mental development, furthermore, is a factor that improve health and therefore disease resistance. Consumption of ultraprocessed food is a problem that can be resolved for governmental instances, however the principal problems are the family customs which imply the facility to obtain those products or the access to them. However, the perception of children is important to establish the bases of how the consume of ultraprocessed food can influence in the perception of good or bad feeding. Due to above mentioned, the present work show the essay of the analysis of food consumption in boys and girls in the localities of Nueva Jerusalem and Tihosuco, Quintana Roo, in order to stablish the bases of how is the perception of children in ultraprocessed food.

Keywords —bad nutrition, ultraprocessed food, feeding in children, vulnerable feeding in children.

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#### I. INTRODUCTION

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Nutrition is important so that every living organism can develop optimally and also fulfill its role of growth, reproduction and leave descendants (James *et al.*, 2019). Growth and development constitute an important factor for the good physical and mental state of children (Clark *et al.*, 2020), so much so that various disorders that affect adults can have their origin in childhood, such as: obesity, atherosclerosis and arterial hypertension (Niwa, 2019). Hence the importance of nutritional monitoring for the integral and multifaceted development of man (Esquivel *et al.*, 2002).

One of the most important stages for efficient development is childhood, UNICEF (2020) mentions that hundreds of millions of children and women suffer from hidden hunger, are deficient in

vitamins and minerals, and rates of overweight are rising rapidly. To cover this deficiencies in nutrients, factories created systems to produce food with excellent quality and quantity, those foods were called ultraprocessed food (UPF), which currently have been produce in great scale around the world (Baker *et al.*, 2020). But the problem is that UPF plays a role in the development of chronic diseases, but evidence of their influence in children is limited (Leffa*et al.*, 2020).

Young children are highly vulnerable because of rapid growth and inadequate dietary practices (Suchdev*et al.*, 2020). Due to this, the present study sought to analyze the consumption of boys and girls in two locations in Quintana Roo, as an exploratory study to find out if there is a preference for backyard and self-sustaining foods or if they consume ultraprocessed products.

#### II. MATERIALS AND METHODS

#### Location of evaluation

Two locations were randomly selected in Quintana Roo, later the primary and secondary schools were located and 147 surveys were carried out on boys and girls from 8 to 14 years of age.

#### Methods to obtain the information

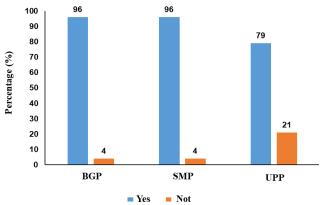
Surveys containing questions related to sustainable foods and ultra-ultra-processed foods were carried out, including: 1. Do you consume backyard or family garden products? 2. Do you consume super market products or ultraprocessed products? and 3. Why do you prefer ultraprocessed products?

#### Analysis of data

For the quantitative and qualitative processing, a database was prepared with the information collected from the surveys, this was analyzed through descriptive statistics that served to identify its main characteristics of data distribution and its representation through supporting tables and graphs, all the analyzes were performed in the statistical package RStudio.

#### III. RESULTS AND DISCUSSION

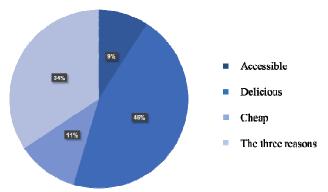
The diet of the boys and girls in the two locations studied is based on a balance between backyard products and ultraprocessed foods. The consumption percentages for both cases were 96% (Figure 1). Regarding the preference for ultraprocessed products, 79% prefer ultraprocessed products and 21% prefer to consume non-ultraprocessed products.



**Figure 1.** Percentage of children who prefer Backyard Gardens Products (BGP), Supermarket Products (SMP) and Ultraprocessed Products (UPP).

Fardet and Rock (2020) mention that ultraprocessed products are essential for the life of communities, however, it is important to mention that food and nutritional security has been deteriorated, as seen in the burden of malnutrition that affects all countries of the world due to excessive consumption of ultraprocessed food (Gómez and Ricketts, 2013). The preference of children in ultraprocessed food is accompanied by availability, since 9% mention that they consume these products because are accessible,

they consume these products because are accessible, 46% because are delicious, 11% because are cheap and 34% for the three reasons, As can be seen in Figure 2, taste plays a very important role in the acquisition of ultra-processed products.



**Figure 2.** Percentage of preference in ultraprocessed products by boys and girls from the communities of Nueva Jerusalén and Tihosuco.

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Fardet and Rock (2020), mention that among the factors that can make the preference of ultraprocessed food are family purchase decisions, availability of this type of food, food advertising and aggressive marketing, the strategies of these products aimed at parents and children, usually with attractive packaging, health claims and the use of cartoons. Despite the fact that there is a fight to reverse this problem in various countries, we could mention that this fight is a task at all levels, from the family, schools, bad eating habits to politicians.

The good consumption of sustainable foods could help improve nutrition in boys and girls and it was observed in the present work that despite having ultra-processed foods available, they also have preference and tastes for foods that are produced in backyard gardens.

#### IV. CONCLUSIONS

Nutrition in boys and girls from the Nueva Jerusalén and Tihosuco localities, presented a general preference for consuming both sustainable foods and ultraprocessed foods. This preference is due to several factors including accessibility, taste and because they are cheap. Despite having ultraprocessed foods on hand, the diet is basically made up of both types of food.

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#### CONFLICT OF INTEREST

Authors declare that they have not any conflict of interest.

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