



Consumption pattern of vegetables in a child population of Pamplona (Colombia): a qualitative study

Patrón de consumo de verduras en una población infantil de Pamplona: Estudio Cualitativo

Irene Botía-Rodríguez¹ orcid.org/0000-0001-9862-3115

Gabriel Antonio Cardona-Arguello¹ orcid.org/0000-0001-6738-6348

Lennys Carvajal-Suárez^{1*} orcid.org/0000-0001-6490-7670

1. Health Program, University of Pamplona. Pamplona, Colombia

Received: 13 April 2019

Revised: 24 September 2019

Accepted: 19 December 2019

Botía-Rodríguez I, Cardona-Arguello G, Carvajal-Suárez L. Patrón de consumo de verduras en una población infantil de Pamplona: Estudio Cualitativo. *Univ. Salud.* 2020;22(1):84-90. DOI: <https://doi.org/10.22267/rus.202201.178>

Resumen

Introducción: La alimentación adecuada es fundamental para el desarrollo físico e intelectual pleno de los niños. **Objetivo:** Analizar el patrón de consumo de verduras en una población infantil de Pamplona, Colombia. **Materiales y métodos:** Se realizó una investigación cualitativa mediante la metodología de discusión grupo focal con la participación de madres de familia de un hogar infantil. La información fue analizada a través de la propuesta de *Attride-Stirling*. **Resultados:** Las participantes consideraron que el consumo de verduras es importante e influye positivamente en el estado de salud. El consumo es afectado por la baja cantidad y poca frecuencia de suministro, preferencias limitadas por algunas preparaciones, ejemplo inadecuado en padres de familia. La frecuencia de compra, el lugar, precio y características organolépticas, son factores que condicionan la compra de verduras en el hogar. Se mencionaron estrategias positivas y negativas para incentivar la ingesta en los niños. **Conclusiones:** Las madres tienen conocimientos asertivos sobre el consumo de verduras y su relación con la salud en los niños. La cantidad consumida es inadecuada puesto que difiere de las recomendaciones establecidas. Los elogios, animación y compañía de padres para incentivar su consumo son estrategias positivas, aunque utilizan el castigo y el premio.

Palabras clave: Verduras; patrones alimentarios; alimentación; nutrición en salud pública; salud. (Fuente: DeCS, Bireme).

Abstract

Introduction: Adequate nutrition is fundamental for the physical and intellectual development of children. **Objective:** To analyze the vegetable consumption pattern of a child population in Pamplona (Colombia). **Materials and methods:** We conducted a qualitative research with mothers that used children's day care facilities applying the focus group discussion methodology. The information was analyzed with the *Attride-Stirling* tool. **Results:** Participating mothers considered that vegetable consumption is important and has a positive effect on children's health. A poor consumption is caused by low quantity and frequency of supply, limited preferences for some food preparations, and inadequate examples set by parents. The purchasing frequency, place, price and organoleptic characteristics of vegetables are important factors that limit their purchase at home. Some positive and negative strategies are suggested to encourage the ingestion of vegetables in children. **Conclusions:** Mothers have assertive knowledge about vegetable consumption and its relation to children's health. The level of vegetable consumption was low as it differs from the established recommendations. Praise, motivation and companionship of parents are positive strategies to encourage vegetable consumption, although some prefer punishment and reward.

Key words: Vegetables; feeding behavior; feeding; nutrition public health; health. (Source: DeCS, Bireme).

***Corresponding author at:**

Lennys Carvajal Suárez
e-mail: lennys.carvajal@unipamplona.edu.co

Introduction

According to the World Health Organization (WHO), low intake of fruits and vegetables is among the 10 main risk factors that contribute to mortality of human populations. Proper consumption of these two food groups would contribute to prevent non-communicable diseases, such as cardiovascular disorders and cancer⁽¹⁾.

There is evidence showing a close relationship between eating habits and population health. An unhealthy diet is associated with a higher frequency of chronic diseases such as obesity, diabetes mellitus, cardiovascular diseases, cancer, and other pathologies, which trigger greater morbidity and mortality and have become a public health problem⁽¹⁾.

The 2005 National Survey on the Nutritional Situation (ENSIN in Spanish) in Colombia identified some problems related to food consumption. More than a third of the Colombian population registered low intake of fruits and vegetables, and there was a high prevalence of poor intake of macronutrients⁽²⁾. Also, the 2010 ENSIN reported that 64.9% of the Colombian population and 10.3% of the child population consume cooked vegetables⁽³⁾.

A good-quality nutrition during the first years of life is essential so that boys and girls stay healthy and sustain an appropriate physical and intellectual development. On the contrary, malnutrition during early childhood has irreversible negative consequences for children and the society in general, including disease vulnerability and low academic performance⁽⁴⁾. Alderete *et al.*⁽⁵⁾ indicates that eating habits have changed mainly due to an increase in the production of processed foods, rapid urbanization, and changes in lifestyles. Also, there is a high consumption of hypercaloric foods, saturated fats, trans fats, simple sugars and sodium, together with an insufficient intake of fruits, vegetables, and dietary fiber. The causes of these habits are: inadequate behaviors copied from parents, low consumption frequency, lack of vegetables in the preparation of meals, and poor knowledge, creativity and patience. In addition, Girón *et al.*⁽⁶⁾ mention that living traditions are factors that affect family eating habits as they do not include in their diet, fruits and vegetables that have a high nutritional value, even though these products are grown locally.

Therefore, to precisely quantify and describe food consumptions is not an easy task since the different types of surveys that describe specific dietary patterns are tools with particular characteristics, each one presenting advantages and disadvantages⁽⁷⁾. Thus, the need to have qualitative methods to investigate, explore and search various aspects that markedly affect food consumption patterns together with the criteria applied for the decision, selection, preparation, purchase and consumption of food is highlighted. One of the most commonly used qualitative methods are focus group discussions, which collect data from meetings with the study groups^(8,9). One of the most significant advantages of this approach is that it is based on the human tendency to form opinions and attitudes during the interactions between the members of those groups because they are able to express their opinions, which is not achieved through closed questionnaires or individual interviews⁽⁸⁾.

In this context, this research has the objective of identifying the factors associated with the consumption of fruits and vegetables of the children serviced by the Niño Jesús de Praga Child Care Facility. This is a nonprofit institution under the management of Instituto Colombiano de Bienestar Familiar - ICBF (Colombian Institute of Family Wellbeing), which provides comprehensive care to infants and children aged between 18 months to 5 years old.

Materials and methods

A qualitative research was conducted, which applied a focus group discussion methodology. The approach involved four stages: recognition of the topic of discussion; identification and selection of participants, moderator and secretary; design of the thematic discussion guide, logistics preparation, organization of the teaching materials; and development of the workshop. The latter included the following phases: induction, execution, discussion and ending. An intentional sampling method was used to choose participants, which refers to the selection of key informants who are considered representative of the social structure⁽¹⁰⁾. The minimum selection requirements were: being older than 18 years of age and being responsible for the purchase and preparation of food at home. These two conditions facilitate the development of the thematic guide.

The focus group met at a classroom of the child care facility and consisted of 12 mothers who agreed to participate in the study, which was led by two students belonging to the Nutrition and Dietetics program of the University of Pamplona, Norte de Santander (Colombia), who played the roles of moderator and secretary. A thematic guide was structured with the purpose of driving the discussion, which addressed questions regarding knowledge, purchase, price, consumption frequency, and strategies used to motivate the consumption of vegetables in the infant and child population.

The data were studied according to the Attride-Stirling thematic network proposal analysis, where qualitative data are organized according to the issues that arise at different levels. This method includes six basic steps: 1) Material coding: material reduction and location of textual segments with relevant meaning to the analysis; 2) Identification of the topics: interesting contents are highlighted and transferred to a new document; 3) Construction of thematic networks: identification of large thematic groups, which are encoded with names and grouped by similar topics; 4) Description and exploration of thematic networks: this is the first part of the analysis, taking into account that the construction of networks involves several reading steps in order to improve the understanding and meaning of the

topics; 5) Summary of the topics: organization of an abstract that includes the main topics and characteristics; and 6) Interpretation of the characteristics that were found⁽¹¹⁾.

Ethical considerations

This research was classified as a no-risk study according to the No. 8430 Resolution of October 1993 by the Colombian Health Ministry, which establishes the scientific, technical and administrative guidelines for health research⁽¹²⁾. The Association of Parents of the Child Care Facility and participating mothers provided the institutional consent through a previously designed instrument.

Results

The focal group discussions were recorded for a total time of 1 hour and 10 minutes and were transcribed to 24 pages. This information was then encoded in 7 pages containing text segments that were significant for the analysis. The resulting fragments were grouped in 4 thematic networks: knowledge about consumption of vegetables; consumption of vegetables in the children population; conditioning factors for the purchase of vegetables; and strategies applied to motivate the consumption of vegetables in children (Table 1).

Table 1. Thematic networks of the perception of families regarding the purchase and consumption of vegetables in children from the Niño Jesús de Praga Child Care Facility, Pamplona (Colombia)

Thematic networks	Topics
R1: Knowledge of consumption of vegetables	Importance and relationship of the consumption of vegetables and health status Benefits of consuming vegetables
R2: Consumption of vegetables in the child population	Frequency of consumption at home Meal times when vegetables are offered Vegetable presentation Amount of consumed vegetables Factors that affect consumption
R3: Conditioning factors for the purchase of vegetables	Purchase frequency Place of purchase Price Features at the time of purchase
R4: Strategies applied to motivate the consumption of vegetables in children	Punishment Model/example Motivation

Two topics were included in the thematic network called “knowledge about consumption of vegetables”: importance and relationship of consumption of vegetables and health status, and benefits of consuming vegetables. In this regard, the mothers expressed that ingesting vegetables provides vitamins and minerals that are important for the child’s health. For instance, they mentioned that *“I would say that the consumption of vegetables is for proper growth (...); “The contribution of vitamins by vegetables (...); “A healthy diet, for appropriate health (...).”*

With respect to the relationship between the consumption of vegetables and the health and nutrition status of children, the mothers stated that this food group has a positive impact on health, mentioning that: *“they provide a lot of iron, vitamins, (...); They provide vitamins, minerals, and fiber (...); “they help the body to work properly, fostering a healthy and strong development of children (...); in addition, the mothers indicate there is a relationship between vegetables and mood and energy supply (...).”*

In reference to the second thematic network called “consumption of vegetables in the children population”, this study highlights the consumption of vegetables that are grown locally in the region, such as carrots, tomatoes, green beans, peas, broccoli, lettuce, cabbage, among others. They are frequently served at lunch and dinner in the forms of soups, mixed with scrambled eggs, mixed with rice, stews, juices, purees, and cakes. Regarding the quantity supplied, the participants reported the following: two tablespoons for salads, three tomato slices, half a cup to a complete cup of stew or scramble eggs, and a glass of juice. The frequency of vegetable consumption in this population group is 2-3 times a week.

The infrequent consumption at home and negative behaviors learned from other children were mentioned as the main factors that affect the consumption of vegetables in children. The participant mothers mentioned that *“My little ones were used to eating vegetables but now I have to almost force them to eat carrots and green beans, and they start saying “yucky”, which they must have learned from someone”*. Another factor associated with the consumption of vegetables is that they are cooked differently at the child care facility from how they are prepared at the child’s home: *“Children get used to one*

type of food preparation; if that changes they do not like it and they do not eat vegetables at home (...).”

In relation to the conditioning factors for the purchase of vegetables, some mothers do it every day while others buy vegetables every 3, 4 or 8 days, depending on the needs. They expressed the following opinions: *“A moderate amount will last up to eight days or four days according to (...); “Every eight days or so (...); and “When we need them (...).”*

The preferred places to buy vegetables were main city markets, food storage centers, shops, farms, and home gardens. The best prices were found at city markets, food storage centers, and farmer markets. The most important features that the mothers considered at the moment of purchase of vegetables were: *“they must look fresh (...); “their size (...); “their firmness (...); “their appearance (...); and “(...); and “their color. “When broccoli is fresh it has a green color, otherwise it is yellow”*.

Regarding the strategies applied to motivate the consumption of vegetables in their children, the mothers mentioned: presentation of plates (bars and happy faces), consumption in the company of parents, and use of games like *“The little airplane”* or *“you eat one and I eat the other”*. They also used rewards (*“we will give you a sweet treat”*), competitions (*“Whoever finishes first wins”*), and punishment (*“The belt (...).”*

Discussion

The family is the fundamental basis of society and parents are role models for children⁽¹³⁾. The results obtained in this study on the importance of vegetable consumption agree with those reported by Gamarra *et al.*, who found that mothers think that the daily consumption of fruits and vegetables is a healthy practice since they contain vitamins and prevent constipation⁽¹⁴⁾.

Vegetables are an important source of vitamins and minerals that contribute to the regulation of different essential processes⁽¹⁵⁾. According to the WHO, the benefits of fruits and vegetables for health can be attributed not only to a single nutrient or a mix of nutrients but to an arrangement of benefits provided when these food products are consumed in sufficient amount and variety. An adequate consumption of fruits and vegetables together with other healthy habits are fundamental factors to prevent and reduce

deficiencies in macronutrients, which have a negative impact on the Colombian population. Thus, encouraging the consumption of these types of food from the earliest stages of life is important. In addition to preventing diseases, this consumption is crucial to building a healthy diet regimen, which promotes: better health; living conditions; greater guarantees for individual and collective food security⁽¹⁶⁾.

In reference to the most frequently consumed vegetables at the child's home, participating mothers mentioned that they preferred local products from the Department of Norte de Santander (Colombia), such as tomatoes, carrots, green beans, broccoli, lettuce, and cabbage (based on the Ministry of Agriculture and Rural Development, Norte del Santander)⁽¹⁷⁾. Likewise, the national profile of production and consumption of vegetables developed by the Colombian Ministry of Health and Social Protection and the United Nations Organization for the Food and Agriculture Organization (FAO) of the WHO has established that the most produced vegetables in Colombia are tomatoes, carrots, and onions in that order. Other vegetables that stand out due to their production volumes and/or the areas of production in Norte de Santander are cabbage, cucumber, palm heart, and lettuce. Finally, the vegetables that are most frequently consumed are tomatoes, onions, carrots, green peas, green beans, and cabbage⁽¹⁶⁾.

Regarding the consumption of vegetables in the child population, the obtained results differ from the ranges reported by the dietary guidelines for the Colombian population, which recommend between one to two daily portions of vegetables for children aged between 2 to 5 years old⁽¹⁵⁾. However, these results are similar to those reported by Aldarete *et al.*⁽⁵⁾, who indicated that green leafy vegetables are among the most rejected and least consumed ones. Participating mothers and teachers of the previous study reported as causes were a lack of a consumption habits and food preferences of parents that are acquired by their children. These results show that there is insufficient knowledge regarding attractive food preparations, which could incorporate beneficial vegetables that are usually rejected.

Despite the country's production advantages, in 2005, Colombians exhibited a low consumption of these food products, a pattern that was reported by the

National Survey of the Nutritional Situation in Colombia. The survey showed that 27.9% of the Colombian population between 2 to 64 years of age did not include any vegetable in their diet. In 2010, only 16.1% of the population ingested fresh vegetables on a daily basis. The previous situation is disturbing since fruits and vegetables play an important role in a healthy diet and they are related to the prevention of noncommunicable diseases associated with a poor diet. These results highlight the importance of improving this problematic situation in the short and long term, given the importance of these foods for the public health of the Colombian population⁽¹⁸⁾.

Based on the factors that affect the consumption of vegetables in children, the results of this study are similar to those reported by Díaz⁽¹⁹⁾, who indicates that cultural practices are transmitted from person to person. The acceptance of specific foods increases in children when they follow adults, parents, teachers and other kids as their role models. This situation is highlighted by the fact that food selection during the first years of life depends on the attitudes and selection patterns displayed by parents and/or people in charge of providing food. Thus, this study highlights the influence that parents and other children have on food consumption by young people. Parents also affect children's feelings of approval and rejection as well as their connection with food. Similarly, Girón *et al.*⁽⁶⁾ reported a low intake of fruits and vegetables by children in households where parents do not have knowledge about an appropriate diet, nutrition, and the benefits of those products in the cognitive development, physical development, and growth of children.

Aldalur *et al.*⁽²⁰⁾ indicates that a deficient intake of fruits and vegetables in childhood can lead to a generation of adults with health problems. This issue should be approached from a community nutrition perspective since it is essential to identify, treat, and correct feelings and habits such as food neophobia and "capricious or fussy" eating. This community-based approach would be aimed at improving a healthy diet and increasing the consumption of healthy fruits and vegetables by children.

In terms of the conditioning factors for the purchase of vegetables, the results of this study are similar to those reported by Barrero⁽²¹⁾, who reported that 70% of the participants buy fruits and vegetables at least

two days a week, while 11% of them do so every day. Barrero's study also revealed that the favorite place of purchase is the green grocery of the neighborhood, where participants can find food of better quality and price. However, the mothers that participated in this study indicated that they prefer to buy vegetables in the market. Thus, comfort is an important motivation to purchase food. Also, the quality of the product is another determining factor that is even more important than price, good deals, and the appearance of the product.

In reference to the common strategies used to encourage the consumption of vegetables in children, Delgado *et al.*⁽²²⁾ found similar strategies to the ones reported in this study. Here, there is a mediating role of parents to pressure children to consume vegetables. Other motivating strategies include neutral stimulation, reasoning, offering rewards, and intimidation, but their outcomes are not always the best. Techniques such as pressuring and threats to take away privileges like favorite foods and games are commonly correlated to food rejection in children. A retrospective study with adults reported that participants who experienced pressure to eat when they were children developed an aversive feeling to the food they were forced to eat⁽¹⁹⁾.

Based on the results of this study, strategies such as punishment and rewarding are not appropriate since the most successful techniques to motivate food intake in children involve gradual and progressive acceptance. These motivating strategies to favor better consumption of vegetables include variations in food preparation, inclusion of new ingredients, and use of role models⁽¹⁹⁾. Pressure is not a good option to foster consumption since it triggers a low intake, promotes negative conceptions and rejection of food. On the contrary, neutral stimulation, offering rewards, and praising are related to food acceptance. While positive effects increase food satisfaction, previous reports have revealed that neither rewards nor compliments promote a sustained preference for healthy food⁽²³⁾.

Bazzano *et al.*⁽²⁴⁾ highlight that early and appropriate nutrition is essential for the survival, growth and development of children so they can reach a healthy adulthood. Thus, these adults can have enjoyable lives and productively contribute to their communities, and this is the reason why improving children's nutrition has become an international priority. The

positive impact of better dietary practices in infant nutrition has been widely studied and has improved the health of communities.

Conclusions

Participating mothers had assertive knowledge about the importance of vegetable consumption and the relationship between consumption and children's health. In addition, the vegetables frequently prepared at lunch and dinner are those produced in the region. However, the quantity consumed is inappropriate since it differs from established recommendations. The most common conditioning factors that affect vegetable purchasing were: place, frequency of purchase, and organoleptic characteristics during product selection. Finally, praise, encouragement, and the company of parents were positive strategies used to motivate vegetable consumption. Nevertheless, some parents also used punishment and rewarding.

Acknowledgments

The authors thank the students from the 10th semester of the Nutrition and Dietetics program who took the Professional Action Field Practicum, for their participation in the gathering of information. Similarly, the authors thank the mothers of the Child Care Facility who participated in this study.

Conflict of interests

The authors declare that there are no conflicts of interests

References

1. Organización Mundial de la Salud. Fomento del consumo mundial de frutas y verduras. Nota descriptiva. 2015. <https://www.who.int/dietphysicalactivity/fruit/es/>
2. Instituto Colombiano de Bienestar Familiar, Profamilia. Encuesta Nacional de la Situación Nutricional de Colombia, 2005. Ensin. 2005. 465 p. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/GCFI/Ensin%202005.pdf>
3. Instituto Colombiano de Bienestar Familiar. Encuesta Nacional de la Situación Nutricional en Colombia 2010. Encuesta Nac la Situac Nutr en Colomb [Internet]. 2010;1(64):325. Available from: <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/GCFI/Base%20de%20datos%20ENSIN%20-%20Protocolo%20Ensin%202010.pdf>
4. Coronado Z. Factores asociados a la desnutrición en niños menores de 5 años. [Internet]. Universidad Rafael Landívar. 2014. Available from: <http://biblio3.url.edu.gt/Tesario/2014/09/15/Coronado-Zully.pdf>

5. Alderete M, Giorgetti AC. Representaciones sociales sobre alimentación saludable en los cuidadores de niños preescolares de Barrio Chingolo, Córdoba, en el año 2017. Universidad Católica de Córdoba - Facultad de Ciencias de la Salud - Licenciatura en Nutrición. 2017. http://pa.bibdigital.uccor.edu.ar/1468/1/TF_AldereteGiorgetti.pdf
6. Girón N, Plazas KY. Los hábitos alimenticios en la familia y su incidencia en el desarrollo de los niños y niñas de preescolar del Centro Educativo Rural El Convento del municipio de Trinidad Casanare. Universidad Santo Tomás de Aquino - Facultad de Educación; 2019. <https://repository.usta.edu.co/bitstream/handle/11634/15918/2019KeniaPlazasNiniGiron.pdf?sequence=1&isAllowed=y>
7. Silvera DC, Rodríguez A, Díaz YA, Moya L, Terry B, Rodríguez V. Método cualitativo rápido para evaluar el consumo de alimentos en adolescentes y adultos. Convención Internacional de Salud, Cuba Salud. 2018. <http://www.convencionsalud2018.sld.cu/index.php/convencionsalud/2018/paper/download/1962/791>
8. Saldanha D, Colomé CL, Heck T, Nunes N, Vivero V. Grupo focal y análisis de contenido en investigación cualitativa. *Index Enferm.* 2015;24(1-2):71-5. <http://dx.doi.org/10.4321/S1132-12962015000100016>
9. Mollericona JY. Pautas metodológicas para la realización de grupos focales. Antecedentes, fundamentos y prácticas. *Tinkazos.* 2014; 17(36). Disponible en: http://www.scielo.org.bo/scielo.php?script=sci_arttext&pid=S1990-74512014000200014&lng=es&nrm=iso
10. Arias-Gómez J, Villasís-Keever MÁ, Miranda-Navales MG. El protocolo de investigación III: la población de estudio. *Rev Alerg México.* 2018;63(2):201. <http://revistaalergia.mx/ojs/index.php/ram/article/view/181/309>
11. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research, *Qualitative Res.* 2001;1(3):385-405. <https://utsc.utoronto.ca/~kmacd/IDSC10/Readings/Readings/text%20analysis/themes.pdf>
12. Ministerio de Salud. Resolución No 008430 del 04 de octubre de 1993. Bogotá, Colombia. 1993. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>
13. Hernández E, Severiche D, Romero-D, López M, Espitia V, Rodríguez A. Promoción de alimentación saludable en hogares comunitarios infantiles del municipio de Sopó (Cundinamarca. Colombia) bajo la estrategia de Atención Primaria en Salud. *Rev Científica Salud Uninorte.* 2015;31(3). Disponible en: <http://www.redalyc.org/articulo.oa?id=81745378008>
14. Alva VC. Conocimientos, percepciones y prácticas alimentarias de madres de escolares con exceso de peso de 6 a 8 años de edad de tres colegios públicos del Cercado de Lima agosto - setiembre 2014. Universidad Nacional Mayor de San Marcos. 2017. <http://cybertesis.unmsm.edu.pe/handle/20.500.12672/6716>
15. Instituto Colombiano de Bienestar Familiar. Guías Alimentarias basada en alimentos para la población colombiana mayor de dos años. Manual para facilitadores. Primera edición. 2015. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SNA/guias-alimentarias-basadas-en-alimentos.pdf>
16. Ministerio de Salud y Protección Social. Lineamiento técnico nacional para la promoción de frutas y verduras. Estrategias para el aprovisionamiento, manejo, expendio y promoción del consumo de frutas y verduras. Bogotá D.C. 2013. http://ecos-redenutri.bvs.br/tiki-download_file.php?fileId=1647.
17. Ministerio de Agricultura y Desarrollo Rural. Anuario Agrícola regional Norte de Santander, cultivos producción en toneladas (T). 2016.
18. Ministerio de Salud y Protección Social. Perfil nacional de consumo de frutas y verduras. Bogotá D.C. 2013. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SNA/perfil-nacional-consumo-frutas-y-verduras-colombia-2013.pdf>
19. Díaz M. Factores influyentes en el comportamiento alimentario infantil. *Rev Fac Med.* 2014;62(2):237-245. <http://www.scielo.org.co/pdf/rfmun/v62n2/v62n2a10.pdf>
20. Aldalur EM, Mateo CM, Lasa NB. Neofobia y otros trastornos restrictivos alimentarios en la infancia y consumo de frutas y verduras: revisión. *Rev Española Nutr Comunitaria.* 2014;20(4):150-7. DOI:10.14642/RENC.2014.20.4.5029
21. Barrero L. Estudio sobre hábitos de consumo de frutas y verduras de los consumidores cordobeses. Documento de Trabajo. 2012. <https://desarrolloterritorial.adec.org.ar/horticola/images/habitos-de-consumo-de-frutas-y-verduras.pdf>
22. Delgado-Pérez D, Liria-Dominguez R. Estrategias usadas para alimentar a niños preescolares por madres de una zona urbano marginal de Lima, Perú. *Rev Peru Med Exp Salud Publica.* 2016;33(3):507. <https://doi.org/10.17843/rpmesp.2016.333.2295>
23. Uceda EM. Influencia del comportamiento en las conductas en alimentación de niños de educación infantil [Internet]. 2015. Available from: http://digibug.ugr.es/bitstream/handle/10481/40949/Maya_Uceda_Elena.pdf;jsessionid=E00D6ADA00DA697E6C4CC2FC3840075F?sequence=1
24. Bazzano AN, Potts KS. Qualitative Studies of Infant and Young Child Feeding in Lower-Income Countries: A Systematic Review and Synthesis of Dietary Patterns. *Nutrients.* 2017;18(9). DOI:10.3390/nu9101140