

School health: an educational intervention on nutrition from an integrated approach

Salud escolar: una intervención educativa en nutrición desde un enfoque integral

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ABSTRACT

This article describes an interdisciplinary educational intervention whose objective was to promote healthy lifestyles in school-age children attending a public school in Cordoba, Argentina (2013-2014). The project, focused on the school community, with intersectoral participation, was organized into three areas: diagnosis of the situation (DS), food and nutrition education (FNE), and healthy food kiosks. The research included a DS (observational study) on food and nutrition status in school children. The process and results of the project were evaluated. It was found that overweight, intake of soft drinks, sweets and dairy products, as well as school food kiosks, emerge as topics that must be addressed in studies on population nutrition. The proposed goals were achieved; coordinated and intersectoral networks and educational activities were generated. We conclude that the family and the school community play an important role in the formation of healthy eating habits, whereas the school offers a valuable opportunity for FNE.

Keywords: School health, educational intervention, nutrition, food safety, integrated approach.

RESUMEN

Este artículo describe una intervención educativa interdisciplinaria, cuyo objetivo fue promover estilos de vida saludables en niños en edad escolar asistentes a una escuela pública de Córdoba, Argentina (2013-2014). El proyecto, destinado a la comunidad escolar y con participación intersectorial, se organizó en tres ejes: diagnóstico de situación (DS), educación alimentaria-nutricional (EAN) y kiosco saludable. El DS supuso un estudio observacional-analítico sobre el estado alimentario-nutricional en escolares. Se evaluó el proceso y resultados del proyecto. Se encontró que el sobrepeso, ingesta de gaseosas, golosinas y lácteos, así como el kiosco escolar, emergen como tópicos necesarios de abordar en materia nutricional en la población estudiada. Las metas propuestas fueron alcanzadas, se generaron redes y actividades educativas coordinadas e intersectoriales. Se concluye que la familia y la comunidad educativa desempeñan un rol importante en la formación de hábitos alimentarios y se reconoce que la escuela ofrece una oportunidad valiosa para la educación alimentaria nutricional.

Palabras clave: Salud escolar, intervención educativa, nutrición, seguridad alimentaria, enfoque integral.

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INTRODUCTION

Based on the concept of *food security*, understood as the access to the food needed for an active and healthy life at all times by all people (Pedraza, 2003), a team of professors of the Bachelor's Degree in Nutrition at the Catholic University of Córdoba implemented an interdisciplinary project, aimed at improving the food security through the promotion of healthy eating habits in the school population of a marginal neighborhood located in the peripheries of the city of Córdoba. To develop the intervention strategy, we started from a comprehensive conception of the problem of food insecurity. The proposal was focused on the school community (students and teachers involved), with active intersectoral participation of a primary local health care center and a civil non-profit association established in the neighborhood. It was structured around three axes: diagnosis of the situation (DS), nutritional food education (*Educación Alimentaria Nutricional* - EAN), and a healthy kiosk. This experience integrated communication and health education activities with research tasks in diagnostic institutions. Its disclosure establishes a concrete case of applying nutritional food education in the field of formal education, while responding at the same time to the emerging needs of health and nutrition matter at a community level.

THEORETICAL FRAMEWORK

The epidemiological profile of Latin America has experienced considerable changes in recent decades, and although many of the old public health problems have been resolved, new ones arise and some old issues reappear (Di Cesare, 2011). In relation to this, it has been reported acknowledged that Argentina presents an advanced stage of demographic, epidemiological and nutritional transition within the regional context (Argentina Association of Dieticians and Nutritionists Dieticians [AADyND], 2000). In matters of nutrition, this implies the coexistence of the two extremes of malnutrition: undernourishment and obesity. These two problems impact socio-economically disadvantaged populations the strongest. Numerous studies provide evidence for the disturbing association between poverty and obesity (Kershaw, Albrecht & Carnethon, 2013; Pedraza, 2009; Peña & Bacallao, 2000; Popkin & Slining, 2013).

On a global scale, the World Health Organization (WHO, 2009) has noted that about 1,000 million people worldwide are overweight or obese and more than 300 million of them are clinically obese. In the case of children, it has been shown that 10% of those of school age have excess body fat, with an increased risk of developing chronic diseases. A quarter of these children are obese and some have multiple risk factors for developing type II diabetes, heart disease and other comorbidities (Lobstein, Baur & Uauy, 2004). In Latin America it has been reported that 20% to 25% of the people between 0 and 19 years of age are overweight or obese, noting significant increases in prevalence in recent years (Rivera et al., 2014). As mentioned, in Argentina there is coexistence of deficit situations (mainly anemia and stunting) alongside a high overweight frequency, where childhood obesity prevails in an estimated 10.4% (National Nutrition and Health Survey [ENNyS], 2007).

It is important to highlight that this obesity epidemic has been increasing especially in the most vulnerable and socioeconomically disadvantaged groups, in both developed and developing countries; a situation that can be most notably seen in Preschool children (Caballero, 2006). It can be affirmed that children are a vulnerable group within each household.

The optimal integral human development an individual can achieve relates to their genetic potential, environmental conditions (even prenatal ones), physical and psychological development, towards a fulfilled productivity and creativity; therefore a child's growth is considered a useful indicator to measure indirectly the quality of life of a population (Hernández, Herrera, Pérez & Bernal, 2011). To combat the current epidemic of obesity, it has been recognized that measures designed to ensure adequate nutrition of women during their pregnancy, breastfeeding period and the early years of life of infants should be implemented, as they are considered critical stages to ensure a good future for children and society (Muzzo & Monckeberg, 2012). This entails the implementation, from an early age, of actions to prevent and control overweight, focusing not only on the child and his family, but also on the environment where the child grows and develops (school, kiosk, neighborhood, etc.). In other words, it implies to consider all the scenarios that integrate the current obesogenic society (Gutiérrez-Fisac, Royo-Bordonada & Rodríguez-Artalejo, 2006).

The UNICEF report entitled *State of the World's Childhood 2012* refers to the importance and urgency of giving priority to children in an urban world, understanding that it is essential to provide the services and opportunities they need to exercise their rights and develop their abilities (Tuñón & Salvia, 2010; UNICEF, 2012). In particular, the concept of “food security” reaffirms the right of individuals and populations to have access to a nutritionally complete, adequate and proper diet, that does not cause health or environment risks and that is culturally acceptable (Tirenni, 2013).

In this context, and recognizing the need to strengthen the role of the University as a facilitator of scientific knowledge, but from a comprehensive perspective based on respect of lore and/or experiences of other social actors, this project aims to address the problem of food insecurity among schoolchildren residing in a shantytown of Córdoba. We believe that food security in these children, understood as the fulfillment of their right to a healthy and culturally acceptable nutrition, could be achieved through strategies that include the detection of subpopulations at risk of food insecurity, promoting intersectoral participation and dietary education of the educational community.

This seeks to respond to the need to promote knowledge about healthy lifestyles from early childhood and raising awareness in the educational community about the benefits of healthy eating. It starts by acknowledging the problem of food insecurity in childhood as a topic of interest to various social actors, including: i) the school community (for its direct impact on school performance, absenteeism, school kiosk, etc.); ii) professional nutrition and health (where maternal and child health is a main area of focus); and iii) family (in particular those embedded in areas of social vulnerability).

School age is key in the history of children. The school has a constitutive role in the elaboration of knowledge and skills that enables them to make healthy decisions to take care of themselves and others. Given that it is during childhood that preferences, habits and personal styles of each individual are molded, it has been claimed that educational interventions to promote the development of self-care guidelines and healthy lifestyles from early childhood must be more integrated and sustained in order to obtain more positive and long-lasting effects (WHO, 2004). It is therefore acknowledged that in order to direct interventions

in accordance with the health and nutritional needs of the children, one must first carry out a diagnosis of their dietary-nutritional situation, which includes an assessment of both anthropometric and alimentary data. This would be a basis to explore the relationship between nutritional status and eating habits, as well as a guide for future interventions in food and nutrition education in accordance to local realities.

In this context, with the overall objective of promoting a healthy lifestyle in school-aged children attending a public school located in a marginal neighborhood in Córdoba (2013-2014), the implementation of this project sought to achieve the following specific objectives: a) to characterize the nutritional reality of schoolchildren; (b) offer to the educational community tools for nutrition education; (c) promote greater availability of healthy foods in school; (d) encourage an improvement in the lifestyles and dietary practices of children; (e) raise awareness in children and educators about it, achieving a “multiplier effect” in their homes, schools and society in general.

METHODOLOGY

The project “Promoting Healthy Lifestyles in school”, aimed at students aged 6 to 12 in a public school in a peripheral area of the city of Córdoba, Argentina¹ was planned and carried out by a team of university professors of the Bachelor's degree in Nutrition from the Catholic University of Córdoba (funding sponsor thereof), with training and experience in the field of Public Health and Food and Nutrition Education, but who were reunited for the first time on the issue addressed here. The results presented in this article correspond to the first project evaluation, after its first year of implementation.

In order to assume integral approaches –and acknowledging the importance of working with actors and community referents– it is understood that a child's nutritional status is the outcome of not only of food balance, but also the living conditions of their environment (Bolzán & Mercer, 2009). For this reason, a joint strategy was developed at the beginning of the project between the different actors involved. A civil association that has great value among the community and that has been working for years with school-aged children in the area and their families, in relation to

maternal and child nutrition, was initially contacted. Also, the health center and school were contacted to learn of the problems they saw from their work within the community and to reach agreements in order to begin a coordinated work effort. Convinced that it is possible to have an impact from within the local participatory planning, a collaborative workshop was implemented to jointly define the work needing to be done.

In this context, it was agreed to develop a diagnosis of the food security situation in the school, for which it was decided to conduct surveys to teachers and parents as well as a nutritional assessment of the students. The survey was designed working with an instrument developed by the research team based on the questionnaires of the National Nutrition and Health Survey in Argentina (ENNyS, 2007). The survey, self-administered and structured, inquires about eating habits of children. In this aspect, it asks about the frequency of food consumption by the group, the person in charge of the food, the venue of the main meals and family sharing. Other variables of interest are birth weight (as declared by parents), gender and date of birth of the child. The survey had an informed consent form attached to it, which was signed by the parent or guardian. On the other hand, the assessment of nutritional status was done through two indicators: Body Mass Index (BMI)/age and height/age, according to gender using the WHO international reference. Based on the initial diagnosis, nutrition education activities with teachers and school officials were planned. It should be noted that the activities were initially from a constructivist position, understanding learning as a continuous process, where the subject develops their schemes of analysis of the reality. In this approach, knowledge is the result of a process of construction and reconstruction of reality, which originates in the interaction between people and the world. The most representative theorists of this explanatory theoretical line are Piaget, Vygotsky, Bruner and Ausubel.

In this context, a project was developed, with all the actors involved in a participatory way and in an activity plan. This can be summarized in three main areas: i) Activities organizing team work: analysis of existing networks, human resources organization, project planning, monitoring and supervision of activities, impact assessment, and so on; ii) Activities of diagnosis: developing of instruments for data collection,

anthropometric assessment of the nutritional status of schoolchildren, conducting surveys to evaluate eating habits, analysis of results; and iii) Food and nutrition education workshops: planning, implementation and evaluation of participatory workshops with faculty members and students.

This study, of an analytical and observational nature (Sampieri, Collado, Lucio & Pérez, 1998), was aimed at describing the nutritional status of children between 6 and 12 years of age attending school in 2013 and analyzing its relationship with their eating habits. The diagnosis results of the situation are as followed: nutritional status was assessed according to the body mass index (BMI/age, WHO Reference Standard) of 127 children. Additionally, eating habits were investigated, employing the survey answered by an adult family member. The relationship between overweight (BMI > pc85) and dietary variables of interest were assessed: frequency of milk consumption at breakfast (less than 5 times a week/ 5 or more times a week); fruit (at least 1 daily fruit: yes / no); candy or sweets (2 or less, 3-4, and 5 or more times per week) and regular consumption of juices/soft drinks as beverages (yes/no), using the Chi-square test ($\alpha = 0.05$).

Related to the intervention of nutrition education, activities were directed to, on one side, the faculty members of the school (grade teachers, professors of special subjects and managers); and on the other, students. Four meetings were held with the teaching staff in the format of a bimonthly workshop, which was scheduled after agreement with the school authorities. The workshops were coordinated by licensed nutritionists (university teachers linked to the project) with the support of local referents, and developed under the strategy of Training of Multipliers, which uses the *Multipliers' Manual of Dietary Guidelines for the population of Argentina* as support material (Lema, Longo & Lopresti, 2002). This manual presents ten messages for a healthy diet and is intended for those who are either an educator or fulfill a multiplier task in this area. Its aim is to encourage the consumption of a variety of foods and to reinforce proper eating habits in order to maintain a healthy lifestyle. At the same time, it helps the consumers to choose healthy foods typical of their culture and within the family budget (Lema et al., 2002). As for school children, six workshops were conducted in the classroom,

coordinated by students of the Bachelor Degree of Nutrition, with the support of the teachers of the school. In this instance, it was also resorted to the messages proposed in the Dietary Guidelines and adapted to the target age group. The issues that emerged from the diagnosis process and the workshops with teachers were especially addressed as priority issues. The modality was participatory. In every moment of the workshop (opening, development and closure) different recreational activities were proposed to the children to work on the subject matter. Support material was used, such as informational sheets, puzzles, and crosswords, among others.

A way to evaluate the results of the educational intervention, the team compared the supply and demand from the food school kiosk before and after the educational intervention (at the beginning of the project and six months later). In order to do this, the food demand during recess of three different weekdays was surveyed. Food average of the school kiosk per group, as a percentage of the total demanded, was later calculated. A difference test between proportions of related samples was performed between the pre and post-intervention demand (95% confidence level).

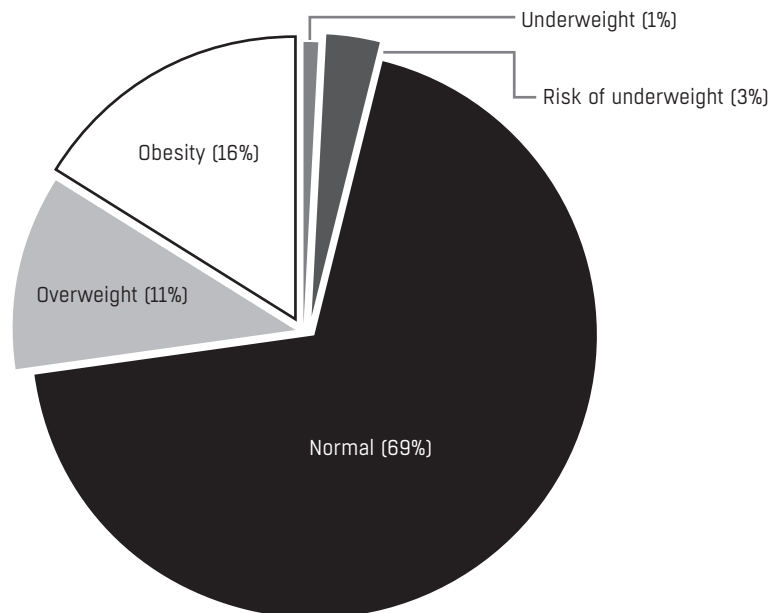
To give account of the achievements and milestones obtained according to preset goals, evaluation indicators, both of the process as of the outcomes, were formulated. Among these, the following percentages were included of: children with nutritional status assessment; teachers who participated in the workshops of EAN; students participating in the workshops; fulfillment of the established timetable; and teachers attending the workshops of EAN who valued the initiative either "Good" or "very Good" (questionnaire structured with evaluative scales ranging from "Inadequate" to "Excellent" for different items). In general, the intended aim was to reach at least 50% of coverage in each case.

RESULTS

DIAGNOSIS OF DIETARY-NUTRITIONAL STATUS

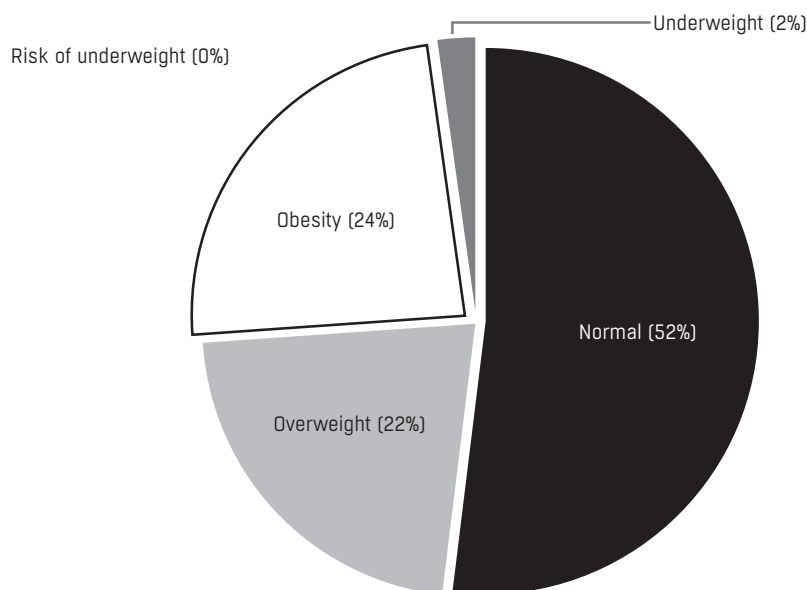
As stated, a total of 127 children participated in the diagnosis (51.2% female and 48.8% male). Among them, 25% (32 children) were in first grade, 22% (28 students) in third grade, 28% (36 children) were from fifth grade and 25% (31 children) from sixth grade, aged between 5-7, 8-10, 9-12 and 10-14 years, respectively.

Chart 1. Nutritional status according to gender of the students who participated in the study (women)



Source: Project "Promotion of healthy lifestyles in school", UCC of Córdoba (2013)

Chart 2. Nutritional status according to gender of the students who participated in the study (Men)



Source: Project "Promotion of healthy lifestyles in school", UCC of Córdoba (2013)

After assessing the nutritional state by gender (Figures 1 and 2), it stands out that 25.5% of the women and 45.7% of the males are overweight or obese. In both groups, the category of low weight did not exceed 2% of the total.

Table 1 presents selected variables of eating habits. As shown, in 74% of cases (94 children), the person responsible of nourishment is the mother, followed by the mother and the father jointly (24%). A 53.5% of children have some family meals, while 4% has no meals in their home environment. A 95.3% of the children receive school meals, the most frequently one being school lunch. Children who take food to school from their home for a snack (75% of the total) bring mostly sweets and breads (biscuits, bread, cookies, pastries, etc.). On the other hand, juices and soft drinks were reported by 71.8% of the children as the beverages most commonly drank with meals.

In terms of frequency of food consumption, it was found that only 24.6% consumes dairy products daily for breakfast (Chart 3). A 56.6% of the children confirms to eating sweets 3 or more times a week (Chart 4) and 89% consumes at least 1 fruit per day (Chart 5).

Comparing the proportion of food demanded at the school kiosk at the beginning and at the end of the

study, it was observed that post-intervention the preference for *snacks* (sweets and sugary drinks) prevailed, although the demand for cereals and fruits increased significantly ($p < 0,05$).

To analyze the relationship between being overweight and the different dietary variable presented in the total population studied (without distinction by gender), we did not find any statistically significant association (see table 2). However, in the analysis by gender, the association between the intake of milk at breakfast and obesity was significant in the group of males over the age of 8 years ($p = 0,0154$).

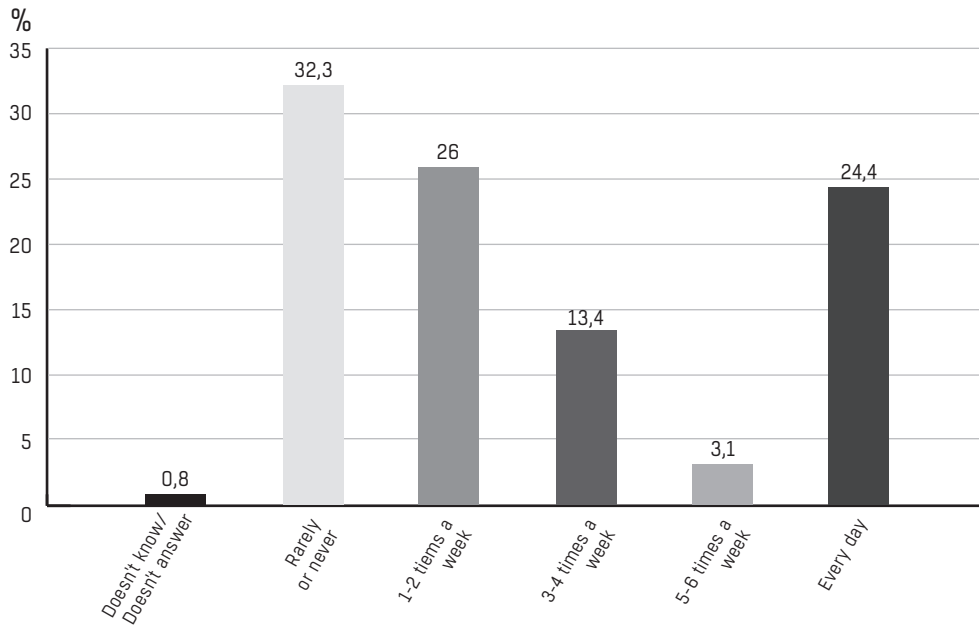
In addition to the above, the diagnosis included a survey of the average demand for food at the school kiosk through non-participant observation during breaks in the first month of intervention, and eight months after intervention with the same category, by group of foods (% over the total respondent). It was found that the proportion of food demanded at the school kiosk at the beginning of the study was: *snacks-candies* (48.7%), *cereal-breads/baked goods* (35%), *sugar-sweetened beverages* (16.3%), *dairy and fruit* (0%, even with the existing offer).

Table 1. Distribution of schoolchildren who participated in the study (n = 127) according to selected variables of eating habits

	Number of Children	%
Person responsible for the nourishment of the child		
Mother	94	74
Father	1	0,8
Mother and father	31	24,4
Other family member	1	0,8
Commensality with family		
Does not perform any family meals	5	3,95
Only some	68	53,5
All	49	38,6
Does not know/ does not respond	5	3,95
Meals had by the child in school		
Lunch	58	45,7
Lunch and afternoon snacks	13	10,2
Breakfast and lunch	49	38,6
Snack	1	0,8
Does not receive any	6	4,7
Brings food from home to school as a snack		
Yes	96	75,6
Not	26	20,5
Does not know/ does not respond	5	3,9
Type of school snack selected		
Dairy	1	0,8
Fruits	10	8,2
Bakery	58	47,6
Candy	38	31,1
Cereals	2	1,6
Soft drinks	13	10,7
Beverage usually consumed with meals		
Water	35	27,6
Water and juice/soda	5	3,9
Juice/soda	86	67,7
Does not know/ Does not answer	1	0,8

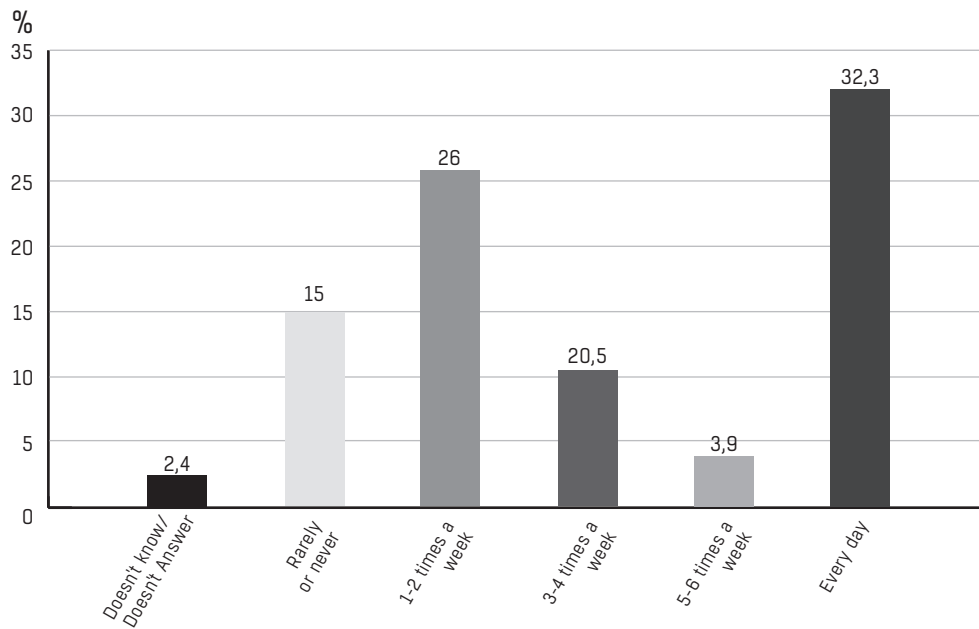
Source: Project "Promotion of healthy lifestyles in school", UCC (2013).

Chart 3. Frequency of dairy product consumption of the students at breakfast (n = 127).



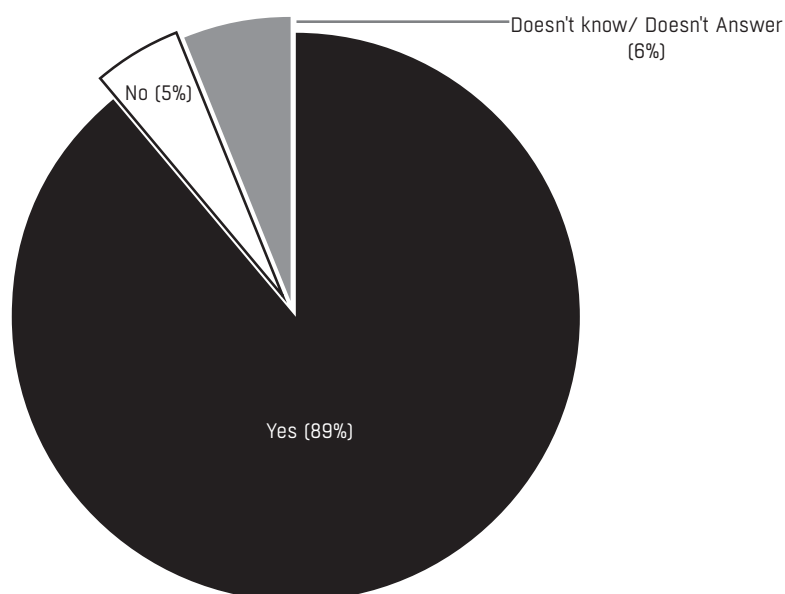
Source: Project "Promotion of healthy lifestyles in school", UCC of Córdoba (2013)

Chart 4. Frequency of sweets and candy consumption of the students (n = 127).



Source: Project "Promotion of healthy lifestyles in school", UCC of Córdoba (2013)

Chart 5. Frequency of fruit consumption of fruit of the students per day (n = 127)



Source: Project "Promotion of healthy lifestyles in school", UCC of Córdoba (2013)

Table 2. Dietary variables selected in relation to overweight (yes/no) in students (n = 172)

	Overweight (n = 44) Students (%)	Without overweight (n= 79) Students (%)
Sweets and candy consumption Frequency		
2 or fewer times per week	20 (45,5)	33 (41,8)
3 to 4 times a week	10 (22,7)	14 (17,7)
5 or more times a week	14 (31,8)	32 (40,5)
Frequency of consumption of milk at breakfast		
Less than 5 times per week	30 (68,2)	59 (74,7)
5 or more times a week	14 (31,8)	20 (25,3)
Consumption of fruit at least 1 per day		
Yes	39 (88,6)	70 (88,6)
No	3 (6,8)	5 (6,3)
Do not know does not respond	2 (4,5)	4 (5,1)
Regular consumption of juices/soft drinks with meals		
Yes	31 (70,4)	57 (72,2)
No	12 (27,3)	22 (27,8)
Do not know/ does not respond	1 (2,3)	0 (0)

Source: Project "Promotion of healthy lifestyles in school", UCC of Córdoba (2013)

THE GOALS AND EVALUATION OF THE PROJECT

As described, out of the total of 241 students attending the participating school of the present project, 53% were nutritionally assessed (127 pupils of 1st, 3rd, 5th and 6th grade); a 61.7% (148 students) participated in the workshops that were carried in different shifts, achieving a coverage of 61%. The goal of 50 per cent coverage was achieved.

A feedback workshop was programmed for the faculty part of the diagnosis, planning and performing different educational workshops with them on topics of interest. Specifically, with the faculty of the school (grade teachers, professors of special materials and managers), four workshops on Dietary and Nutrition Education were conducted (Chart 5), using the strategy of training multipliers, which was attended on average by 24 teachers per workshop (89% of the total), exceeding the target of the anticipated 50%.

As outcome goals, the team aimed to have a description of the supply and demand at the school kiosk at the beginning and at the end of the project, meaning before and after the educational intervention. Post intervention, it was noted that the preference for snacks (sweets and sugary drinks) – prevailed, but that there was a significant increase on the demand of cereal-breads/baked goods (*baked goods*) and fruit ($p < 0.05$).

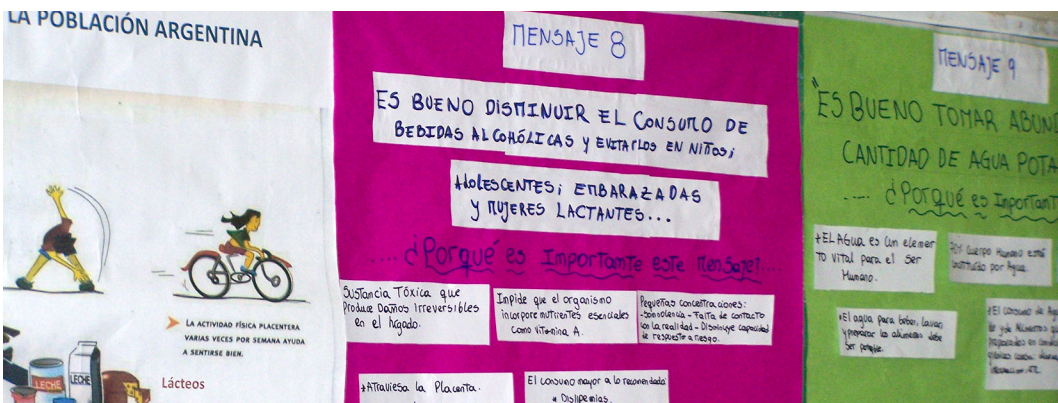
Another goal was to accomplish at least 70% of the established schedule, which was achieved (100% of

the programmed activities were fulfilled). Another aim was to have at least 50% of the teachers value the intervention as “Good” or “Very good”. In this regard, at the end of the workshops, 22 teachers did voluntary and anonymous evaluations of the project (Figures 1-5 show photos of different instances of the workshops held). Out of the results of said evaluation, 17 (77.3%) and 5 (22.3%) teachers valued the workshops as “very useful” and “useful”. Over 85% of the faculty valued the intervention in a positive way, pointing out that the educational modality contributed new knowledge and information, as well as clarifying doubts, enticing proposals for future interventions next year; for example, involving parents and children in cooking workshops, as well as applying technology to develop an interactive game about food.

In addition to pedagogical evaluation, teachers were asked if the project provided tools to incorporate the theme of food and nutrition in the classroom. More than 85 percent said this year to have incorporated the contents learned, and the final product was a science fair held at the school. All 100% of the teachers responded that they were going to incorporate what was learned into next year’s planning. Some of the activities planned for them within this framework for the next year include the following topics: food versus sweets, drinking water, healthy recipes, hygiene, and the importance of breakfast.

Figures 1-5. Workshops on Dietary and Nutrition Education in the School





Finally, it must be noted that from the work developed with the primary school, a new contact with the management of the corresponding kindergarten was achieved. They requested to perform further work with them, highlighting the health problems prevalent or perceived in this educational community. Following the intersectoral perspective and comprehensive proposal, the research team began to think about a network and interdisciplinary work, to give continuity to the work already accomplished. The idea is to include not only materials on healthy eating habits that fall within the promotion of healthy habits in school, but also notions about health care, even at preschool ages.

DISCUSSION

The results of this study show that a high percentage of children who participated in this project were overweight or obese. Although traditionally it has been postulated that the nutritional problems existing in our country is characterized by a moderate prevalence of disproportionate growth (low height-for-age) and increased overweight (AADyND, 2000). The findings are consistent with those reported in the National Survey of Nutrition and Health, Argentina (*Encuesta Nacional de Nutrición y Salud*, ENNyS, 2007). This strengthened and confirmed the results of previous studies, which showed that in young children, overweight triples the frequency of underweight and stunting. In light of our findings, this seems to also characterize school-age populations (Caballero, 2006; Hernández et al., 2011).

Regarding eating habits, the leading indicators among schoolchildren in the study referred to a high consumption of sweets, soft drinks and baked goods as favorites for school snacks, with a low consumption of dairy and fruit. In addition to this, if we consider that the primary person in charge of feeding in the family was the mother, and that a significant percentage of children received food at school, the need to strengthen healthy eating habits from an early age with an intersectoral approach arises, with the ultimate goal being involving both families (especially mothers) and the educational community.

Concerning the impact of food and nutrition education activities, it was observed that teachers and students of the school effectively carried out activities that acted as “multipliers” (as it was, for example, the aforementioned science fair).

Although currently there is a general agreement on the need to prevent overweight from an early age, in some countries childhood obesity has continued to increase, despite different early initiatives to lower it. There are also some examples in Latin American that allow to point out that when food and nutrition interventions are carried out in a structured way as well as evaluated, they can have a positive impact in the change of eating habits and decrease obesity in preschoolers and higher grade students (Vio del R., Zacarías Lera, Benavides & Gutiérrez, 2011). Works as the one presented in this article can serve as a basis for planning and improving future educational interventions in line with local realities, which necessarily should include an assessment of the impact on the nutritional status of the school population in the long run.

The Ottawa Charter for Health Promotion (*Carta de Ottawa para la Promoción de la Salud*, WHO, 1986) defines health promotion as the action of “enabling people the means to improve their health and exercise greater control over it”. From this approach, the Pan American Health Organization (PAHO) developed the Regional Action Plan for Food and Nutrition, with the objective of helping reduce the high prevalence of malnutrition in the region. Among suggested strategies for improving food security (priority action area) at the community level, the Plan includes monitoring populations at risk, recognizing local resources and institutional networks, and nutrition education (WHO, 2004; OPS, 2007). It was with this in mind that the activities implemented through this project were planned, hoping that, regardless of its strengths and weaknesses, it would serve as an example on how to address the food and nutrition reality of socioeconomically vulnerable communities.

We believe that to achieve changes in eating habits that are perpetuated over time, it is necessary to work out strategies that generate long-term autonomy. To overcome this, it is imperative to put a stop to the propagation of standardized messages on food and nutrition, and work instead in a “dialogue of knowledge”, that provides different perspectives on the problem of food insecurity. In this sense, we recognize the need to strengthen and promote intersectoral participation of schools and other social actors as facilitators and promoters, from early ages, of healthy lifestyles and of the benefits of eating healthily.

In accordance with the findings of various studies, it is highly emphasized that to combat food insecurity in households—in addition to the social food aid programs, targeted at the most vulnerable groups, which aim to reduce poverty—it is required to raise the educational level, create jobs and promote the participation of households in its development and evaluation (Álvarez Uribe & Estrada Restrepo, 2011; Moraga, Rebollo, Bórquez, Cáceres & Castillo, 2003; Vio del R. et al., 2011)

Accordingly, we recognize the need to strengthen programs for health promotion at a school level, since they offer great opportunities to improve the present and future health of children (Kain et al., 2005). Also, the need to promote intersectoral participation of schools and other social actors as facilitators and promoters, from early ages, of the benefits associated with eating healthily and maintaining a healthy lifestyle is highly noted.

FOOTNOTES

1. The name of the educational establishment is safeguarded, to preserve the anonymity of the community involved in issues that could result in stigmatization (such as marginalization and inadequate nutrition).

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