Let's make it better! Raising the awareness of the triad nutrition-health-food safety in school education.

ANALYSIS OF HEALTHY EATING HABITS EDUCATION IN THE SPANISH SCHOOL CURRICULUM.

TEACHERS' OPINION ON HEALTHY HABITS EDUCATION IN THE SCHOOL.

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ABSTRACT

In this document, it is shown in the first place a little research on the teaching of contents related to healthy eating habits in the Spanish educational curriculum, from Pre-School to GCSE (from 3 to 18 years old) focusing mainly in monitoring whether or not keeping a balanced diet.

Once this analysis is made, it is displayed a small survey among teachers from Asturias about their opinion on the introduction of these contents in the curriculum. The survey is focused on issues to enhance, shortcomings found when implementing the curriculum, and the degree of interest that the teaching of these contents awaken in the teachers.

KEYWORDS

Food – Nutrition – Healthy eating habits – Balanced diet..

INTRODUCTION

Both health care concerns and keeping a healthy diet are current topics in our society nowadays. The latest daily news is that Spain is losing its good habits of being on the Mediterranean diet and an active lifestyle, which is negatively affecting the health of its population, causing diseases such as obesity.

One of the latest data presented at the International Congress of Nutrition Programs and Physical Activity for the Treatment of Obesity (PRONAF), held in Madrid in December 2011, points out that Spain is the world leader in childhood obesity, overtaking even the United States. In addition, they predict that if this trend continues, just over 30% of the adult population will suffer from obesity in 2030. (Published on December 17, in www.acedyr.com). Moreover, a study by the Thao Foundation shows that 8.3% of the Spanish child population between 3 and 12 suffer from obesity and 21.7% are overweight. It also ensures that these problems are increasingly appearing at earlier ages: between 1 and 4 cases of obesity are given, but especially childhood overweight. (Published on May 16th, 2012, in http://www.elmundo.es/elmundosalud/2012/05/16/nutricion/1337165311.html).

These and other data, not less alarming, led to the Minister of Health to recently announce the creation of a Nutrition and Study of Obesity Observatory in Spain which will aim to promote and improve the NAOS Strategy (Nutrition, Physical Activity and Obesity Prevention Strategy) especially in childhood (published on May 28th, 2012, in http://www.abc.es/20120528/sociedad/abci-observatorio-nutricion-fuster-201205281244.html).

Given this situation and the trend of these recent years that the problem goes far beyond that, the role of the school will be essential to convey good eating habits and to encourage physical activity regularly.

JUSTIFICATION

The changes occurring in our society in the recent decades are making our lifestyle considerably modified. The rural-urban drift, the incorporation of women into the labour market, the development of new technologies, transport, communications, new ways of leisure etc., have made our lives more comfortable in many ways, but they have also made us lose certain customs and habits beneficial to our health, both for adults and for children.

Today we live in a society characterized by haste and stress. This greatly influences our eating habits, as we spend less time to prepare homemade meals and we use packaged products, precooked or fast food instead. Work often makes us eating out, eating it fast, or just skipping any of the meals. That is, we are changing our eating habits, and not in a good direction.

In addition, our forms of entertainment are changing and nowadays our leisure is predominantly passive, but fortunately, it seems that in the recent years, we are becoming aware of the need for physical activity, but nonetheless, much remains to be done.

The combination of these two factors is leading to an issue of great importance to our health, as it is the increase in overweight and obesity and other diseases. Years ago, these disorders seemed to mainly affect the adult population, but in the recent decades it is expanding against the clock among the child population.

PART ONE. ANALYSIS OF THE CURRICULUM

The school has echoed these social problems, and some programs to fight this situation have been implemented.

This intervention does not come from nowhere, or the teachers' good will, but falls within the scope of our school curriculum. One of the aims of education contained in the Organic Law of Education 2/2006 on 3rd May, (hereinafter LOE), which we consider a fundamental pillar is "to achieve full development of the students' personality and abilities".

To achieve this overall development, we must globally promote all dimensions of the students' personality: cognitive, motor and socio-emotional domain. Thus, we will prepare students to get along in society in an active, critical, independent and accountable way; and consequently face the problems like the one we are suggesting.

One aspect that we must work on, in this comprehensive education process in the students, is the acquisition of a series of healthy eating habits to enhance the improvement of their health and quality of life. It is well known that the habits learnt during the childhood are more difficult to be left when we are adults. Therefore, we need to start working on the importance of a healthy nutrition from the first years of life at home, and also at school.

The treatment of eating habits would fall within a broader field such as health, where it

also would accommodate hygiene, physical activity, safety and accident prevention, etc., all of them key aspects that directly affect our health.

PRE-SCHOOL EDUCATION

The Spanish Pre-School curriculum includes aspects related to health, hygiene and nutrition, splitting into first and second cycle the aspects regarding that topic.

FIRST CYCLE (0 - 3 years old)

As regards food we can highlight the following points:

- Acquisition of a tasty, varied and healthy diet.
- Development of everyday eating habits through stimulation and motivation.
- Use adequate food utensils (glasses, plates, cutlery, bibs, etc.).
- From everyday situations, children learn to gradually develop the acquisition of healthy habits and attitudes.
- Acquisition of a proper posture at meals.
- Create an appropriate and harmonious environment at any time of the day.

SECOND CYCLE (3 - 6 years old)

As regards food we can highlight the following points:

- Let the children know the different foods, as well as flavours and scents.
- Acquisition of habits that reveal a tasty, varied and balanced diet.
- Cooperation among children in some daily habits, such as setting and clearing the table.

And finally, as regards the healthy aspects:

- Face disease situations that may arise.
- Face small accidents in a calm way and in cooperation with their peers.
- Identify healthy environments and how they influence positively or negatively on their health.

The curriculum also includes a set of guidelines to be taken into account by the teachers in their daily teaching routine. Specifically regarding Food and Health the following items to enhance are specified:

- Know the different diseases and how to respond appropriately (prevention).
- Show the child a quiet attitude when some kind of accident or if an illness occurs.
- Know the right foods to get healthy habits.
- Act as mediators from the previous knowledge they may have.
- Help the children to expand their food, hygiene and health related knowledge.
- Know how to convey to children healthy, hygiene and nutrition habits.
- Provide resources and support that enable the children to act autonomously at meal, hygiene and health times.

PRIMARY EDUCATION

Health care, and therefore of healthy eating habits, is addressed in the Primary curriculum in several sections.

On the one hand, it is set out as one of the overall goals of Primary Education established by LOE, namely, the k goal: "Appreciation of hygiene and health, know and respect the human body, and use physical education and sport as means to encourage both personal and social development".

Among the different areas of knowledge which includes the Decree 40/2007 of 3rd May, whereby the Curriculum of Primary Education is established, we find clear references to the treatment of eating habits, both in the area of Sciences as in PE, in which part of its contents are driven to health and more specifically to the acquisition of healthy eating habits.

In the area of Sciences we find that goals 2 and 3 are directly related to the topic of our work:

- 2. "Know and value the important contribution of science and research to improve the quality of life and welfare of human beings".
- 3. "Behave according to healthy habits and personal care resulting from the knowledge of the human body, showing an attitude of acceptance and respect for individual differences (age, gender, physical features, and personality)".

Likewise and in line with these objectives, in the block 3 of the contents "Health and Personal Development", a group of contents are set out along the three cycles; first, aspects dealing with contents as the food categories and their function, nutrition and a healthy balanced diet, the prevention of eating disorders etc. On the other hand, contents related to health and disease prevention.

The same holds good in the area of PE, whose introduction shows its intention to respond to the current needs of society and promote a healthy lifestyle, in which the encouragement of healthy eating habits is included to last throughout their lifetime and contribute to improve their self-esteem.

Among the goals of PE, we find the number 2: "Appreciate the physical activity for our welfare, keeping a responsible attitude towards oneself and the others and recognizing the effects of physical exercise, hygiene, diet and postural habits on our health ", which clearly indicates the relationship between food and health.

Regarding the blocks of contents in this area, block 4 is called "Physical Activity and Health", within which we find, among others, contents related to the acquisition of healthy eating habits and their impact on health, being these arranged into cycles.
In both areas, the assessment criteria are equally specified regarding the proposed goals and contents for each cycle.
Moreover, the promotion of healthy eating habits and the work that we are going to do on them fall within the scope of the treatment of various basic skills, among which we highlight:

- Competence in knowledge and interaction with the physical world.
- Competence in learning to learn and autonomy and personal initiative.

In addition, the treatment of education in values in all areas, including Health Education (hereinafter HE) is enclosed in the Article 19 of the LOE. Within the HE, teaching healthy eating habits would be an important section.
We can define the HE in school as a teaching-learning process, aimed at the acquisition of healthy habits and the abolition of those health-damaging actions. The treatment of the various issues that the HE may include (hygiene, drugs, food, alcohol...) can be done from time to time, as a result of the appearance of certain problems etc., or integrating them into the contents of the different curricular areas.
To carry out any questions related to HE, we must consider two principles by T. Williams (as quoted in González Serrano, 1997).
The students must be the axis of all activities aimed at health promotion. To do this, we will start from their previous knowledge, attitudes and needs.
We will promote the students' active participation in this process.
A part of these curricular issues we have pointed out, we must consider the hidden curriculum. At school, students learn more things than the ones we consciously want to convey. The school environment, the way we speak, our comments and actions, the attitudes of peers etc., transmit a series of values that will leave a deep mark on the students.
There are several elements in the hidden curriculum that have influence in the school, but the major factors when taken into account are:

- The relationship between students, since they will try to please their classmates to join a group and not to be rejected. Some obese children may be rejected by their body image, other students may change their eating habits to satisfy their peers, to feel loved or to be leaders, etc.
- The media (especially television and the Internet), that although no direct part of the school environment are one of the main reference and imitation models of behaviour and values for children and youth.
- Teachers' attitudes, since they are a close example to follow, especially at early ages.

SECONDARY SCHOOL.

The health promotion is considered a core value in our society and has been recognized by decision-makers in relation to school when introducing health contents into the Secondary Education curriculum. This was reflected by the entry into force of the General Organic Law of the Educational System (LOGSE), enacted in 1990.

The implementation of the LOGSE meant a significant change within the Spanish educational system. One of its major innovations was to incorporate in the educational contents the realities and social values that definitely connect school to our society, through the so-called cross-cutting topics such as health education, peace and non-sexist education, among others.

The LOE kept this principle of cross-cutting work through the promotion of health education in the different subjects. So, among the general goals of the LOE some of the general principles of Secondary Education appear. Specifically, they are listed as:

k) “Know and accept the functioning of the own body and that of others, respect differences, consolidate habits of physical health and care and incorporate the physical education and sport to encourage both personal and social development. Know and value the human dimension of sexuality in all its diversity. Appraise social habits related to health, consumption, the care of the living things and the environment, contributing to their preservation and improvement.”

In this law, health goals are broadened going from only generic aims in the Secondary Education in the previous law, to extend them into the Primary and Vocational Education.

With the LOMCE (2013) this educational approach, which the LOGSE (1990) timidly began, the school turns into an environment from which you can promote health. It does not only keep the references in the general goals, but for the first time in Spain a specific subject of Health Education in the school is regulated in the curriculum.

In the fourth year of Compulsory Secondary Education or GCSE (ESO) this standard provides three options. The third option is "Food, Nutrition and Health" as a subject with a workload of 70 hours (2 hours per week).

Finally, a course is set in Secondary Education providing contents related to health. With this law, health contents find a subject where to be taught and not just knowledge integrated in satellite ways in other subjects. It is an optional subject in the final year of ESO and schools are required to teach it, although students may choose it or not.

Among the aims of this subject are mentioned:

- Develop in the students skills and abilities to recognize the importance of protecting and promoting health and preventing disease, providing the development of healthy habits and behaviours, especially those aspects related to food, both individually and collectively. In addition, another purpose is to supply knowledge and strategies to critically evaluate and face the social pressure that unhealthy lifestyles raise.
- Provide strategies and guidelines that allow to reasonably develop skills to adopt healthy lifestyles in different aspects of the daily activity, paying more attention to the nutient fact as one of the key elements that contribute to keep or improve one's health status and considering the qualitative and quantitative aspects when defining a balanced diet.

In developing this area there is a particular emphasis on its practical feature for the analysis of different situations related to health, food and nutrients the body needs for a proper functioning. From the approach of challenging situations, students must design solutions in a healthy environment, and develop balanced diets for different contexts and conduct research using different sources of information.

The subject is split into three sections:

1. Block 1. Health and disease. Healthy habits.
2. Block 2. Food and nutrition.
3. Block 3. Conservation and hygiene. Food technology.

Block II, Food and Nutrition, is focused on the food process as one of the main components of health, providing the concepts and tools required to define the characteristics of a balanced diet, but also considering the culinary uses and techniques as an aspect of Spanish cultural heritage.

Block III develops the basics of sanitation techniques, food storage and handling and their potential effects on the people's health, and provides that the students acquire basic knowledge about the changes that have occurred in our diet as a result of new food technologies, promoting, as well, attitudes of a rational and responsible consumption.

Among the aims of this subject are mentioned:

2. Understand the processes and mechanisms related to food, which can trigger diseases and benefit from the knowledge achieved to derive strategies and prevention of diseases applicable to individuals and the community.

3. Develop healthy habits and favourable behaviours to the promotion of health, especially those related to food, and also providing knowledge and skills to successfully

cope with the health risks present in today's society related to lifestyle and cultural and social conditions.

4. Establish the characteristics that define a balanced diet, analyzing the functions of food and nutrients that compose it, assessing their importance to health and highlighting the risks of an inadequate nutrition.

5. Know the different food applications and culinary forms present in our social environment, highlighting its nutritional quality and valuing them as a sign of the wealth and diversity of our cultural heritage.

6. Understand the food sanitation, storage and handling techniques, recognizing the risks associated with each one and promoting good habits of food hygiene.

7. Know the main technological processes applied to foods, describing their effects on sensory and nutritional features and their potential impact on the health of individuals.

CONCLUSION

A clear reference to health treatment is done as seen in various curricular elements, and in some of them, more specifically to nourishment as a factor that influences on it. But it is especially in Compulsory Secondary Education where the establishment of an elective course where a step forward is taken in the integration of food-related contents in the curriculum followed by all young Spaniards.

PART TWO. TEACHER SURVEY

GOALS

The purpose of this study was to determine the teachers' opinion about what is the health education and the methodology used to carry it out, to ease the development of the Health Education Plan in the School.

The theoretical framework, basis of this work, is the most currently accepted paradigm of health education, according to the bibliography consulted: Health Education is a planned and systematic communication and teaching-learning process, aimed at making easy the acquisition, selection and maintenance of healthy practices and making difficult the risky ones. The goal is to seek the modification of knowledge, attitudes and behaviours of the individuals forming the community, in the sense of a positive health. Processes and learning experiences in order to positively influence on health (M. Costa and E. López, 1996).

The following objectives are set:

- Identify and analyze the perceptions that teachers have on our paradigm of Health Education.
- Assess the methodology used by teachers in Health Education.

METHODOLOGY

A cross-sectional study was conducted to achieve the proposed objectives whose target population was the Pre-School, Primary and Secondary teaching staff in public schools in Asturias, through a survey using a questionnaire designed for this purpose.

DESIGN, CONSTRUCTION AND VALIDATION OF THE QUESTIONNAIRE

The questionnaire has been developed by teachers participating in the "Kids for Health" project in the IES Number 1 in Gijón, adapting the version sent by the coordinator. It has been taken into account the situation of teachers in the different levels of education and peculiarities likely to arise in the Spanish educational system.

The questionnaire includes questions about the degree of agreement or disagreement, establishing 5 levels (Likert scale) as regards:

- How to take out Health Education in schools.
- Professionals responsible for carrying out Health Education.
- Concepts and skills they believe they should be taught.
- Concepts and skills that they worked on in the school year 2013-2014.
- Performance assessment.
- Perception of changes resulting from activities of Health Education.

The questionnaire included three more questions aimed to analyze the distribution of the remaining answers depending on each one. These variables are:

a. Number of inhabitants in the location where the school is located: less than 10,000 inhabitants; from 10,000 to 40,000 and more than 40,000.

b. Number of teachers in the school: from 1 to 10; from 11 to 20; from 21 to 30; from 31 to 40; from 41 and 60; more than 60.

c. Educational level where the teacher works: Pre-School, Primary and Secondary.

The data collection took place during the month of January 2015, with the methodology shown below:

- By sending a letter to each selected centre, explaining the reason for the study, and requesting the cooperation of all the teachers.
- By sending an email to each of the teachers with the link to fill in the online questionnaire.
- After one week for completion, collection of the data.

CHOISE OF THE SAMPLE

Sampling was done from the ratio of Pre-School, Primary and Secondary public centres provided by the Regional Ministry of Education and Culture for the school year 2014-2015, reflecting 433 centres of Pre-School and Primary Education and 77 of Secondary Education.

The unit of analysis was the teaching staff in public schools, existing approximately 12,000 teachers in the Autonomous Community, of which about 7,000 are in Pre-School and Primary Education schools and the rest in Secondary.
To determine the sample the universe was stratified; first, by the type of education provided: Pre-School and Primary Education Centres and Secondary Schools. The second stratification was performed by the number of teachers in the centre in:

- Pre-School and Primary Education schools: from 5 to 10 teachers; from 11 to 20; from 21 to 30; and more than 30 teachers.
- Secondary Schools: less than or equal to 20 teachers; from 21 to 40; from 41 and 60; more than 60.

Within each of the groups a random selection from the centres was performed.

The number of teachers to poll belonging to each of the groups was estimated taking into account the proportion of teachers in the group regarding the total of the region. Given the forecast of non-responses, the number of respondents was increased by 90%. 246 responses were obtained. The non-response rate was 51%.

In all schools there were teachers who did not answer the questionnaire, being the percentage higher in Secondary Schools than in Pre-School and Primary Education schools, and higher as more teaching staff they had.

ANALYSIS OF THE RESULTS

The first results presented were obtained from the analysis of the questionnaire filled in by the teachers, in which their views on the aspects asked were expressed. For a better understanding of the results, the data were grouped into two blocks referring to those general objectives raised:

1. Teachers' opinion as regards Health Education, which includes the concept that teachers have of HE.
2. Methodology and assessment of Health Education activities, where it is shown how it is carried out and it has to be to bring health education in the schools, referring both to concepts and skills and values

It is also shown the existence or not of the relationship of the above mentioned premises with the following variables:

- Size of the teaching staff.
- Teaching level that teachers taught: Pre-school, Primary or Secondary.

A) TEACHERS' OPINION ON HEALTH EDUCATION

As regards the concept of HE most teachers agree with the need for Health Education in schools, as it should be a planned and systematic teaching and learning, verbal and nonverbal communication process that promotes the acquisition of healthy habits.

Thus, we must highlight the high degree of agreement with some statements:

- Health Education needs to focus not only on biological and hygienic concepts, but in decision-making, enhancing the ability to choose, and helping students face the challenges (89.8%).
- Health Education should be a planned and systematic process (92.4%).
- Health Education is a verbal and nonverbal communication process (83.6%).
- Health Education is a teaching-learning process (89.4%).

- Health Education promotes the acquisition of procedures and skills on health (88.3%).

Other statements expressed by the teachers reinforcing very significantly the idea of HE are:

- It must impregnate, sequenced by levels, all areas and subjects at all stages (78.6%).
- When the student has to take a decision regarding healthy habits, the influence of the teacher is critical for both the information transmitted and his/her attitudes (80.1%).
- The educational technique to be preferably used with students to develop Health Education is motivating them from what is especially close to them, raising awareness about it and deciding accordingly (91.5%).
- I, as a teacher, must develop in my students learning attitudes and health-related values (90.0%).

It is also found with a high percentage, although lower than the previous, and which do not correspond to the definition of Health Education adopted for this study:

- Health Education contents must be developed as specific actions (64%).
- The teacher has to decide whether or not to include it in their subjects (53.4%).

Regarding the relations with other variables, in relation to:

a) Number of teachers in the centre:

The percentage of teachers who agree with the need for Health Education is greater the lower the teaching staff in a school is, as expressed below.

• **Centres with a small teaching staff** (number of teachers no more than 20). The teachers show a high percentage of agreement on the following points:

- Health Education should impregnate all areas and at all stages sequenced by levels.
- Health Education is a verbal and nonverbal communication process.
- The influence of the teacher is crucial as transmitter of attitudes.
- I, as a teacher, must develop in my students learning attitudes and health-related values.

• **Centres with a medium or large teaching staff** (number of teachers from 21 to 40 and from 41 to 60).

The percentage of teachers who agree to the following statements is increased:

- They cannot develop the contents and also the skills demanded by this subject of Health Education.
- The unique role of the teacher is to educate students in the academic aspects.

b) Teaching level that teachers taught.

The percentage of teachers who agree with the need for Health Education is higher in schools that teach Pre-School and Primary Education stages, as stated below.
It is significant the percentage of teachers teaching Pre-School and Primary Education that agree with the following statements:

- Health Education must be planned and systematic. Health Education should impregnate all areas and at all stages.
- Health Education is a verbal and nonverbal communication process.
- The influence of teachers is crucial, both for the information transmitted and their attitude when the student has to take a decision about healthy habits.
- Health Education is a teaching-learning process.

It is higher the percentage of teachers in Secondary schools that agree with the following statements:

• Teachers cannot develop the contents and also the skills demanded by this subject of Health Education.
• The role of the teacher is to educate students in academic aspects that they need to access higher education.

Secondly, teachers were asked regarding who should be the responsible professionals to conduct Health Education in schools.

Teachers agree with:

- Additional hours for Health Education are needed (77%).
- Among the duties of the entire educational community, and especially teachers, it is to carry out Health Education (68%).
- Health Education cannot be developed if the centre's management is not actively involved (68%).
- It is required the presence of a person in charge of Health Education at school (63.36%).
- It is required the presence of outsourced workers at school (63.58%).

The analysis of the relationship of this question with the other compared variables shows results regarding the number of teachers at the school:

a) Number of teachers in the centre:

Centres with a small teaching staff (from 1 to 20 teachers) agree with:

- It is not essential the presence of an outsourced worker at school.
- Among the duties of the teachers and the entire educational community, it is to carry out Health Education.
- Additional hours are a benefit.

Teachers in large centres (number of teachers from 40 to 60) agree with:

- It is not essential the presence of an outsourced worker or a person in charge to promote Health Education.
- It is not the teachers' duty to carry out Health Education.
- It is not a benefit if he/she has additional hours for Health Education.

b) Teaching level that teachers taught.

In secondary schools the percentage of teachers who agree with the following statements is higher:

- Teachers in some subjects such as Science and PE are solely responsible for teaching Health Education contents.

B) METHODOLOGY USED BY THE TEACHING STAFF AS REGARDS HEALTH EDUCATION AND ASSESSMENT ACTIVITIES CARRIED OUT.

THE MOST IMPORTANT CONCEPTS TO BE DEVELOPED

The 5 concepts on Health Education that the teachers surveyed considered the most important to be dealt with in schools are the following:

- Food and Nutrition (86.55%).
- Food Hygiene (73.05%).
- Food Pyramid (50.86%).
- Prevention and control of food-related diseases (43.32%).
- Need for energy and nutrients. Functions of nutrients in the body (37.93%).

CONCEPTS REALLY DEVELOPED

Health Education concepts that teachers are aware of to have been taught during the school year 2013-2014 do not exactly correspond with those which they think that should be worked on as reflected in the previous question. In general, those concepts have much lower percentages and some others that appear were not in the previous answers.

- Health and Food (62. 28%).
- Food and Nutrition (61. 85%).
- Water and food hygiene, associated risks (57. 76%).
- Food Composition. Food Groups (34. 91%).

• Healthy Food Pyramid (34. 27%).

SKILLS, ATTITUDES AND VALUES DEVELOPED

Regarding the Health Education skills, attitudes and values which have been worked on in the school year 2013-2014, the ones which have been worked on in a higher percentage than the Health Education concepts are:

• Awareness (87.95%).
• Liability (82.76%).
• Tolerance (82.33%).
• Self-esteem (73.49%).
• Social Justice (58%).

ASSESSMENT OF THE HEALTH EDUCATION ACTIVITIES

Regarding the assessment of the health education activities, it is found that only 36% of the teachers systematically assess the health education activities.
Only 22.56% say that the assessment was specifically conducted in the classroom syllabus. The rest do not personally perform any assessment for the HE activities, since they include it in the overall assessment.

With regard to perceived changes from the HE activities, 25% of the teachers perceived attitudinal changes resulting from the Health Education activities.
The biggest changes corresponded to the students' changes in attitude (24.35%).

CONCLUSIONS

Mainly, Pre-School and Primary Education teachers believe that Health Education should be a subject that permeates all areas in all educational stages and to be worked on in a coordinated way in the faculty meetings.

Teachers surveyed in Pre-School and Primary Education centres with less than 40 teachers generally considered that Health Education is a verbal and nonverbal communication process, and the teacher acts as a model in their personal behaviour. A high percentage of teachers in Secondary Education and with larger faculty meetings

are against this claim.

Health Education is a teaching-learning process, according to most Pre-School and Primary Education teachers, understanding it as the reflection of the students from their own experience and adopting a decision accordingly. By contrast, Secondary Education teachers do not think so, but rather the transmission of concepts through a chat.

Pre-School and Primary Education teachers do consider in a high percentage that they have to develop skills in their students, while Secondary Education teachers generally think that they cannot develop the required contents and also the skills related to Health Education.

In general, small faculty meetings considered, mostly, that it is their role to promote attitudes and values, as well as for those teaching in Pre-School and Primary Education.

Teachers surveyed in centres with small faculty meetings say, in a high percentage, that Health Education should be reflected in the Educational Project at the Annual General Programming within the syllabus. By contrast, in the large ones only in the Tutorial Action Plan.

Teachers in centres with small faculty meetings and most of the Pre-School and Primary Education teachers think that it is a duty of the educational community to conduct Health Education, a fact that is favoured if there is someone in charge that encourages it and if the teachers have additional hours to coordinate among themselves. They even consider that it is necessary the existence of a plan on Health Education to invigorate it. Secondary Education teachers believe that it is the teachers' responsibility, that Health Education is the responsibility of some areas as Science and Physical Education.

With regard to the assessment of Health Education activities, it has been made in a small percentage.

In relation to perceived changes resulting from the Health Education activities, a small percentage of teachers claimed to have seen changes in the students' attitudes…

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APPENDIX I.

SURVEY SENT TO THE TEACHING STAFF.

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ANALYSIS OF DEVELOPMENT AND METHODOLOGY OF HEALTH EDUCATION IN SCHOOLS

1. **Regarding how Health Education (HE) should be developed in schools, indicate the degree of agreement or disagreement with the following statements.**
(Strongly agree = 1, Agree = 2, Neither agree nor disagree = 3, Disagree = 4, Strongly disagree =5)

	1	*2*	*3*	*4*	*5*
1.1. HE is a planned and systematic process					
1.2. It must permeate, sequenced by levels, all areas and subjects at all stages					
1.3. HE contents must be developed as specific actions in some subjects or tutorials					
1.4. Each teacher must be able to decide whether to include in his/her syllabus other contents that are not exclusively academic					
1.5. For behavioural learning it is not needed that all teachers in the centre work co-ordinately					
1.6. HE is a communicative process					
1.7. When teachers convey the concept correctly, their personal behaviours become irrelevant					
1.8. When students have to take a decision regarding healthy habits, the teacher's influence is critical for both the transmitting information and their attitudes					
1.9. Talks on a particular topic are not enough to modify the students' behaviour					
1.10. HE is a teaching-learning process					
1.11. The educational technique to use with the students to develop the HE contents is: from what it is close to them, motivating them, making them aware and then deciding accordingly					
1.13. HE promotes the acquisition of procedures and skills on health					
1.12. Talks are enough in HE, if they are explained by a teacher or professional who knows how to communicate it clearly to a small group of students					
1.14. Teachers cannot develop the contents of their subject that is required and besides, skills related to HE					
1.15. HE must focus not only on biologist and hygienist concepts, but in decision-making, enhancing the ability to choose, helping the students to face the challenges, etc...					
1.16. Attitudes must not explicitly be worked on in class because they are acquired with maturity based on the various influences that the students receive					
1.17. The unique role of the teacher is to educate students in academic aspects that they need to access higher education					
1.18. I, as a teacher, should develop in the students the learning of attitudes and values related to health					

2. In relation to the professionals responsible for carrying out Health Education (HE) in schools, indicate the degree of agreement or disagreement with the following statements (Strongly agree = 1, Agree = 2, Neither agree nor disagree = 3, Disagree = 4, Strongly disagree =5, *DK=8, DA=9).*

	1	*2*	*3*	*4*	*5*
2.1. It is required the presence of an outsourced professional to teach the units related to HE that teachers may not feel confident about					
2.2. Among the duties of the entire educational community, and especially teachers, it is carrying out HE					
2.3. It is necessary for the school to have a person responsible for HE to boost its development					
2.4. The development of HE is favoured when teachers have additional hours to coordinate among themselves					
2.5. Tutors are responsible, in the tutoring hours, for developing HE contents					
2.6. HE in schools cannot be developed if the management team is not actively involved					
2.7. Teachers in some subjects or areas such as Science and PE, are responsible for teaching HE contents					

3. Referring to HE CONCEPTS, point in the list below the 5 that are considered most important to be dealt with in Primary/Secondary schools. Mark "YES" in the 5 concepts that you choose, and "NO" in the remaining 10 *(Yes=Y, No=N).*

	SI	NO
3.1. Food and nutrition		
3.2. Energy and nutrient needs. Functions of nutrients in the body		
3.3. Health and diet		
3.4. Food composition. Food Groups		
3.5. Healthy Food Pyramid		
3.6. Food safety		
3.7. Water and food hygiene, associated risks		
3.8. Food biotechnology		
3.9. Canned food and other industrial processed food		
3.10. New foods		
3.11. Food packaging. Food labelling; information and interpretation		
3.12. Environmental impact of the food industry; organic and genetically modified food		
3.13 Food and nutrition in the different life stages		
3.14. Food and nutrition in certain pathological situations: celiac disease and diabetes		
3.15. Prevention and control of food-related diseases		

4. Referring to HE CONCEPTS, point in the list below the ones you have taught in the school year 2013-2014 *(I did=YES, I did not=NO)*

	YES	NO
4.1. Food and nutrition		
4.2. Energy and nutrient needs. Functions of nutrients in the body		
4.3. Health and diet		
4.4. Food composition. Food Groups		
4.5. Healthy Food Pyramid		
4.6. Food safety		
4.7. Water and food hygiene, associated risks		
4.8. Food biotechnology		
4.9. Canned food and other industrial processed food		
4.10. New foods		
4.11. Food packaging. Food labelling; information and interpretation		
4.12. Environmental impact of the food industry; organic and genetically modified food		
4.13 Food and nutrition in the different life stages		
4.14. Food and nutrition in certain pathological situations: celiac disease and diabetes		
4.15. Prevention and control of food-related diseases		

5. Regarding the SKILLS, ATTITUDES and VALUES of Health Education, point in the list below the ones you have taught in the school year 2013-2014 *(I did=YES, I did not = NO)*

	YES	NO
5.1. Changes in nourishment		
5.2. Personal hygiene		
5.3. Assertiveness		
5.4. Tolerance		
5.5. Food awareness		
5.6. Responsability		
5.7. Social justice		
5.8. Self-esteem		
5.9. Self-improvement		
5.10. Appetite control		

6. Was the ASSESSMENT of Health Education activities carried out in your school in the school year 2013-2014? *(Check all that apply).*

YES	NO

7. If the answer to question 6 is YES, indicate in which documents the assessment was reflected. Answer "Yes" or "No" in each case

	YES	NO
7.1. Educational Project and Annual Syllabus		

7.2. Department or Cycle Syllabus		
7.3 Classroom Syllabus		
7.4 Tutorial Action Plan		
7.5. Health Education Project		

8. Were perceived in your school any changes in attitudes derived from activities performed in Health Education (Health Education) in the school year 2013-2014, on the whole, over the year?

YES	NO

9. If the answer to question 8 is YES, mark all those areas where it has been so. Answer "Yes" or "No" in each case

	YES	**NO**
9.1. In the scope of organization and operation in the school		
9.2 Students' attitudes and behaviours		
9.3 Relationship with families		
9.4 Others		
9.5. Teachers' attitudes and behaviours		

10. PERSONAL DATA

10.1. Age *(If you do not want to answer, mark "99")*	
10.2. Gender *(Male=1, Female=2)*	
10.3. Educational level *(Three-year Certificate= 1, Degree=2)*	
10.4.Type of Centre *(Primary=1, Secondary=2)*	
10.5. Educational level taught *(Pre-school=1, Primary=2, 1st Cycle of Secondary Education=3, Secondary=4)*	