

Healthy habits in preschoolers and their families. An invitation to reflection

Hábitos saludables en la primera infancia y en sus familias. Una invitación a la reflexión

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Abstract

Introduction: This study analyzes some health-related habits in a sample of families with children aged 3-5 years. *Objectives:* To study the life habits of preschoolers aged between 3-5 years and their parents, the degree of body dissatisfaction of the parents, and the possible relationships between these factors. *Methodology:* A survey was carried out to identify some life habits, and the IMAGE questionnaire was applied to evaluate the degree of body dissatisfaction in mothers and fathers. The sample was composed of 52 families (51 mothers and 40 fathers, 25 boys and 21 girls). *Results:* The results for mothers, fathers and children are presented separately. Relationships between them were analyzed by Pearson's correlation coefficient with regard to the consumption of fruits, vegetables, sweet foods, pastry, hours of sleep and body dissatisfaction. It was found a significant relationship between parents and children regarding vegetables intake; and a significant correlation between mothers and fathers in relation to the consumption of sweet foods, hours of sleep and degree of body dissatisfaction. *Discussion:* The present findings indicate the presence of unhealthy life habits in a considerable proportion of the adults: low consumption of fruits and vegetables, high consumption of red meat, limited physical activity and insufficient sleep, together with high levels of negative perceptions of their own bodies. *Conclusions:* Governments and competent authorities are encouraged to develop public policies aimed at supporting families in adopting healthy life habits.

Keywords: Healthy Habits. Families. Preschoolers. Body image.

Resumen

Introducción: En este trabajo se analizan algunos hábitos de vida en relación con la salud de una muestra de familias con hijos de edades entre 3-5 años. *Objetivos:* Conocer los hábitos de vida de escolares de entre 3-5 años y sus progenitores, el grado de insatisfacción corporal de los progenitores, así como sus posibles relaciones. *Metodología:* Se empleó una encuesta para determinar los hábitos de vida y el cuestionario IMAGEN para valorar la insatisfacción corporal. La muestra la componen 52 familias (51 madres y 40 padres, 25 niños y 21 niñas). *Resultados:* Se presentan los resultados de madres, padres e hijos por separado. Las relaciones se analizan mediante correlación de Pearson respecto al consumo de frutas, verduras, dulces-bollería, horas de sueño e insatisfacción corporal. Se encuentra relación significativa entre consumo de verduras de padres e hijos; y entre consumo de dulces, horas de sueño e insatisfacción corporal de padres y madres. *Discusión:* Los datos indican la existencia de hábitos de vida poco saludables en una parte importante de los adultos: bajo consumo de frutas y verduras, alto consumo de carne roja, poca actividad física y escasas horas de sueño, junto con índices altos de visión negativa de su cuerpo. *Conclusiones:* Se insta a las administraciones a desarrollar políticas públicas que faciliten a las familias los hábitos de vida saludables y relaciones con la alimentación y el cuerpo más positivas.

Palabras Clave: Hábitos Saludables, Familias. Primera infancia. Imagen corporal.

Introduction

Health has been traditionally conceived from a medical point of view, and the citizens have taken responsibility for its maintenance. The World Health Organization (WHO) itself clearly reflected this fact in its definition of health education, proposed in 1983:¹

a set of information and education activities encouraging people to want to be healthy, to know how to stay healthy, to do what they can individually and collectively to maintain health, and to seek help when necessary.

Analyzing this definition, some of its statements (e.g. “encouraging people to want to be healthy”, “...do what they can...to maintain health”) refer to the person as the main responsible for their own health care. The consequences of this attribution have been partly assumed by citizens, and internalized and reflected by stereotypes attributed to certain issues. Disciplines such as psychology, medicine, anthropology and philosophy have highlighted the stigma associated with ill people, indicating that a disease is often accompanied by shame and stigmatization.^{2,3} Even pathologization and medicalization processes have favored the inclusion of normal phenomena in the category of diseases and, therefore, they have also been stigmatized.^{3,4}

For example, if one states that a person has died at 50 years of age due to a cardiovascular disorder, the immediate question posed by the receiver of the information is usually the following: “But was he fat? Did he smoke? Did he not take care of himself?”. The same happens with other types of diseases, such as cancer or diabetes. Thus, it seems that if a person is afflicted by a particular type of disease, this is due to the fact that they developed a series of behaviors whose inevitable consequence must be to suffer from that disease. Therefore, the person not only suffers from a disease, but is also guilty of suffering from it. In other words, they have to mourn the loss of a life without illness, assume and accept the limitations imposed by their own illness and bear their guilt. Children and adolescents are not free from this guilt that, sometimes, is dropped like a bombshell on family members.⁵

Health companies and systems of some countries, including Spain, have also been powered by this concept of health and by shifting responsibility onto the people. This is reflected in several actions, such as the introduction of co-payment for health care services under the pointless pretext that it encourages the insured person to adopt healthy habits.⁶ That is, the person accounts for the continuing need for medicines, and therefore, they are also responsible for their health condition.

Fortunately, the WHO changed this concept of health, and currently argues that the set of healthy behaviors should constitute a lifestyle that implies a particular way of living in a given environment, highlighting the importance of prevention through health education. This is expressed in the 45th edition of the WHO Constitution, 2006:⁷ “Governments have a responsibility for the health of their peoples, which can be fulfilled only by the provision of adequate health and social measures”. Hence, preventive actions should also target the contexts in which behaviors are developed, since it is impossible to have a healthy lifestyle if adequate environmental changes are not promoted. This notion is also reflected in the Ottawa Charter for Health Promotion⁸, which was one of the goals of the global strategy of “Health for All”, by the year 2000:⁹

The promotion of health represents a comprehensive political and social process, it not only embraces actions directed at strengthening the skills and capabilities of individuals, but also actions directed towards changing social, environmental and economic conditions, so as to alleviate their impact on public and individual health.

Thus, the program of action in the field of health and healthcare of the European Union (2014-2020)¹⁰ considers as one of its priority objectives to encourage the people to adopt healthy lifestyles.

According to this new concept, responsibilities are divided, and the public administration or the government of each country should promote an environment where people can have a healthy lifestyle. Thus, it must offer concrete guidelines for a sane lifestyle, provide parks and sport environments, so that people can acquire, practice and incorporate healthy habits, besides promoting the real possibility of reconciling professional and family life. For their part, people should adopt a healthy lifestyle; and the whole society should break break down stereotypes.

The foundations of these healthy attitudes include the practice of physical activity and sports, and the development of balanced and healthy eating behaviors,¹¹ although there is a lack of specific guidelines geared towards stress reduction, the reconciliation between family and professional life and the spaces of social participation spaces for family leisure activities, in which gender differences are eradicated.¹² Studies indicate that tensions and stress are produced, in a significant way, by work overload, ambiguity and role conflicts that arise when trying to reconcile family and professional life. In relation to stress, Sanz¹³ affirms that “prevention and intervention must be carried out within a broader framework, in which society itself is aware that the well-being of people cannot be determined only in a private manner” (p. 117).

The aforementioned wholesome habits must be acquired in childhood. Like other learning processes, this can be directed or modeled. A direct learning process involves offering the food and giving advice about it, for example, and the modeled process is fundamentally guided by the behavior and attitudes of adults who are close to the young people and who will be the models to be followed by children and adolescents; in other words, home and the educational environment, without forgetting the media and the models that are disseminated through animations, films, advertisements, etc. In this way, it is possible to encourage (or not) the adoption of a healthy lifestyle and also, among other aspects, the development of a body image based on positive aspects, on health and on respect for differences.¹⁴ When the personal experience regarding the own body causes discomfort, the person may develop body dissatisfaction.¹⁵ Due to the phenomenon of globalization, many societies established a relationship between social and personal success, as well as a canon of beauty characterized by a rectilinear thinness for women and a fit and muscled body for men,¹⁶ putting an increased pressure on women.^{17,18} At certain life stages, because of the rapid bodily and biopsychosocial changes that take place, people are more sensitive to sociocultural pressure towards the ideal body. Thus, adolescence, pregnancy and postpartum, among others, are particularly vulnerable stages in this regard.^{14,18,19}

In addition, some studies have found a relationship between body image and health care: body dissatisfaction may act as an indicator of a decrease in physical activity and in the consumption

of fruits and vegetables;²⁰ a positive body image increases the probability of developing health self-care habits, such as physical activity.²¹ Therefore, in recent years, it is considered that body dissatisfaction is a variable that should be taken into account in public health agendas,²² specifically in preventive actions aimed at overcoming eating disorders, overweight and obesity.^{15,23}

Mainly, actions focusing on preventing overweight and obesity have been prioritized. The Clinical Practice Guide on the prevention and treatment of childhood-juvenile obesity²⁴ prioritizes preventive actions targeting the young population and recommends the development of key messages emphasizing the playful aspects of healthy habits:

[...] messages aimed at children should emphasize the playful and rewarding aspects of a physical activity and a varied diet (fun, pleasure, new tastes, wellness, enjoyment...), paying particular attention to their preferences and pushing messages related to health and illness into the background (p. 17).

The aforementioned Clinical Practice Guide²⁴ highlights the importance of fostering a positive body image and the self-esteem of young people :

[...] interventions to promote healthy eating and to encourage physical activity should also foster a positive awareness of one's body image and help build and strengthen children's self-esteem. A special care is therefore recommended to avoid stigmatizing and blaming overweight children or their families (p. 16).

From the point of view of nutrition and food safety, actions have also been implemented to curb the rise in obesity in the population at large, and particularly in children and adolescents. To this end, in 2005, the Spanish Ministry of Health and Consumer Affairs drew up and launched the Strategy for Nutrition, Physical Activity and Obesity Prevention²⁵ (NAOS), which is currently managed by the Spanish Agency for Consumer Affairs, Food Safety and Nutrition (AECOSAN).

This agency carries out programs to prevent obesity and overweight in all levels of society, especially in children. In 2011, these recommendations and public health strategies were granted the status of a law when the Food Safety and Nutrition Law was drafted.²⁶ AECOSAN currently contemplates actions in four different areas, according to the scope (family, community or school), and the focus of the action (the promotion of physical activity or healthy eating).

Actions aimed at children and adolescents are developed in the educational field and are supported by school centers. Within these, the school canteens have special importance. At the end of 2009, the Spanish Agency for Consumer Affairs, Food Safety and Nutrition of the Ministry of Health, Social Services and Equality started the development of a Consensus document on food in schools, framed within the NAOS. This document provided theoretical knowledge and

practical skills on health and nutrition through measures proposed for the organization of eating places, the establishment of criteria for the foods sold in vending machines, canteens and kiosks of educational centers. Although they were initially considered mere recommendations, nowadays these measures fell within the legal framework applicable to the educational centers in which general or special teaching plans are offered at a national level.

Among the measures regarding eating habits, it is recommended to follow the Mediterranean diet, and thus to consume two daily servings of vegetables and three of fruits, two or more servings of fish per week and two of lean meat, avoiding red meat, i.e., less than two portions of red meat and a portion of processed meat per week.²⁷ Nonetheless, a study carried out by the Spanish Nutrition Foundation²⁸ in the adult population reveals that the consumption of fish, lean meats, eggs, fats, sweets, sausages, etc., is above the recommended levels; and the consumption of vegetables, legumes, among others, is at a lower level than is recommended. In relation to children, a low consumption of fruit and vegetables and an excessive consumption of meat in school canteens have also been suggested.²⁹

Among the healthy habits related to eating behaviors, the following stand out: family meals around the table;³⁰⁻³² to avoid having meals in front of the television; to avoid having meals on the couch.³³ The variables associated with weight gain in children are, among others: reduction of physical activity, lack of sleep, sedentary leisure time, inadequate eating habits³⁴ and inappropriate sleep ranges for the age group.³⁵

Although the majority of the actions performed do not contemplate the psychological variables, obesity has been associated with this type of variables, including body dissatisfaction.³⁶ Moreover, despite the recommendations and the immense expenditures made for promotion campaigns, data indicate that childhood and adult obesity and overweight rates are increasing. In this regard, the Spanish Agency for Consumer Affairs, Food Safety and Nutrition³⁷ estimates that, according to WHO criteria, approximately 41% of boys and girls between 6-9 years of age are overweight. Regarding the adult population, the ENRICA study (Epidemiology of Obesity in Spain, 2009-2011) found out that 39.4% of the adult Spanish population is overweight, and 22.9% is obese. As has been pointed out above, sleep habits, among other factors, have been associated with overweight. Seen in these terms, the recommended sleep ranges for children between 3-5 years are about 10-12 hours each day and naps are considered normal until 3-4 years of age. In the adult population, sleep duration usually ranges between 7-8 hours per day, although it is considered normal for each person to develop their own sleep patterns, according to age, emotional state, health condition, etc.³⁸

For all these reasons, the present work aimed at identifying life habits of schoolchildren between 3-5 years and their families, as well as the degree of self-reported body dissatisfaction in fathers and mothers. In addition, it also intended to analyze the possible relationship between the reported habits of mothers, fathers and children.

Methodology

Participants

This study was carried out in an educational center, located in the city of Toledo (Spain). The participants included 52 families, who reported the habits of their children aged 3-5 years, all attending preschool. Six surveys were considered void due to missing data and/or because they were not correctly filled in. In addition, adults were given 104 questionnaires in order to assess their personal habits and their degree of body dissatisfaction. Of these, 90 questionnaires were returned, 50 filled in by mothers and 40 by fathers. Therefore, this research analyzed data of 137 participants or 52 families, distributed between 46 children (21 girls and 25 boys) and 97 adults (51 mothers and 40 fathers).

Research Instruments

Survey on children's eating habits, reported by their parents. This instrument was created for the present study and consisted of 20 multiple response questions. The content of the questions concerns the frequency of food consumption, eating habits, perception on the child's weight status and hours of sleep. It is based on Díez-Gañán research.³⁹

Survey on dietary habits and physical activity of fathers and mothers. This instrument was created for the present study and consisted of 18 multiple response questions. The content of the questions refers to the management of the grocery shopping, the menu preparation, the frequency of food consumption; sports practice; frequency of physical activity; time spent in sedentary activities, amount of sleep; perception of one's own body, accomplishment of a diet and body-related teasing. This instrument is based on Díez-Gañán research.³⁹

IMAGEN Questionnaire to assess body dissatisfaction.⁴⁰ It comprises 38 items and three factors: cognitive-emotional (21 items); perceptive (10 items); and behavioral (7 items). To answer the items, a frequency scale of five alternatives from 0 to 4 was used (0 never or almost never, 1 sometimes, 2 often, 3 many times, 4 almost always or always). The internal consistency of the questionnaire varies between .87 and .96 in the values of Cronbach's alpha. Other psychometric data can be found in the questionnaire's manual. In addition, according to the recommendations of the authors regarding specificity and sensitivity values, the cut-off point was determined at 45 for women's direct total score and at 30 for men's.

Procedure

The instruments were filled in by the families anonymously, voluntarily and individually. The educational center was responsible for the distribution and subsequent collection of the questionnaires.

Ethical aspects

Both the educational center and the families signed an informed consent form for a voluntary and anonymous participation in the present investigation. Moreover, the instruments were duly codified to ensure anonymity, thus complying with the current Data Protection Law.

Data analysis

In order to identify the habits of the participants, a frequency analysis was carried out, and the possible relationships between the responses of fathers, mothers and children regarding their habits were also analyzed through Pearson's correlation coefficient. To establish the percentage of the sample that presented a high body dissatisfaction, a cut off point was determined according to the scales and the recommendations of the authors of the questionnaire. For women, a total direct score over 45 was used, and for men, a total direct score over 30.

Results

Table 1 shows the total results of the study, which are analyzed and discussed separately.

Table 1. Frequency of healthy-related habits of fathers, mothers and children. Toledo, 2016.

Habit (indicator)	Children	Habit (indicator)	Mothers	Fathers
Fruit consumption (3 portions per day)	7.7%	Fruit consumption (3 portions per day)	8%	20%
Vegetables consumption (1 portion per day)	19.2%	Vegetables consumption (1-2 times a day)	2.5%	17.5%
Intake of sweet foods (everyday)	5.8%	Intake of sweet foods (every day)	17.3%	13%
Hours of sleep per day (< 9 hours)	51%	Hours of sleep per day (< 5 hours mothers; < 6 hours fathers)	49%	40%
		Practice of sports (none or never)	78%	46%
		Walking (Never or almost never)	29%	40%
		Hours a day spent sitting down (>5 hours)	48.9%	42.5%
		Body dissatisfaction (exceeded the cutoff point)	28.8%	19.2%

Healthy habits and body self-perception of the mothers

Most of the mothers participating in the research completed the questionnaire corresponding to their habits and body image. Only one did not take part, therefore, data from 51 mothers are presented. Of these, 82.4% affirm they make a shopping list, half of which informed they are responsible for the family meal planning (51%). When this occurs, in 56% of the times the mother is the responsible for the task, in 4% the father and in 16% both parents. Besides, the mother most often do the cooking (62% of cases), although a quarter reported that they share this task equally with their partners (26%), and only 6% affirmed that men (fathers) usually do the cooking.

In relation to the food habits of mothers, one can observe that half of them consume fruits twice a day (52%), followed by 24%, who do it once a day and 16%, who do not consume this type of food. Regarding vegetables, almost half of the mothers reported that they consume this type of food 3-4 times a week (49%), 27.5% 1-2 times a week, and 19.6% once a day, compared to 3.9% who do it twice a day. Contrastingly, half of them consume sweet foods 1-2 times per week (51%), 19.2% 3-4 times a week and 17.3% every day.

As for breakfasts, all of them, except one, take this meal in which they mainly consume dairy products (94.1%) and bread (70.62%), compared to a small proportion that consumes fruit or juice (27.5%). In the other meals, the most frequent foods, consumed four times a week, include bread (78.4%) and dairy products (92.2%). On the other hand, they consume white meat (72.5%), fish (45.1%), red meat (39.2%) and cold cuts (31.4%) three times a week.

Regarding the practice of physical activities, only 21.6% of mothers affirmed they engage in some kind of sport, the most frequent are Pilates (5.8%) and running (3.8%). In relation to other types of physical activity, 29.4% of mothers never or almost never go for a walk, 80.4% never ride a bike, and 48.9% spend five hours or more a day sitting down. Furthermore, the information provided on sleep habits indicates that 54.9% sleep between 7-8 hours, and that 49% sleep 5 hours a day or less.

In the questions corresponding to body weight perception, the survey revealed that a large part of this group believes they are an appropriate weight (49%), while 39.2% perceive themselves as overweight, 9.8% perceive themselves as “fat”, and one woman considers herself too thin. In addition, almost half of them went on a diet at least once (45.1%), and 7.8% were still on a diet at the time of the survey. At another level, almost a quarter of them were teased about their bodies (23.5%).

Finally, based on the answers provided by the mothers to the IMAGEN questionnaire, 15 exceeded the cut-off point, that is, 28.5% of the sample, according to the answers, show a significant body dissatisfaction.

Healthy habits and body self-perception of the fathers

76.9% of the fathers of the children participating in the research filled the assessment instruments provided. Based on these data, the answers of 40 fathers are presented (see Table 1). The results indicate that all men, except one, have breakfast, and just some of them have fruit or juice for this meal (17.5%) in comparison with those who eat bread (62.5%). Additionally, according to the information provided, 37.5% consume two pieces of fruit per day, compared to 30%, who consume one piece and 20%, who eat three pieces. Vegetables are consumed with the following frequencies: 45% consume 3-4 times a week, 30% 1-2 times a week and only 17.5% every day.

The most popular foods among fathers are white meat (64.1%), fish (51.3%), red meat (41%) and cold cuts (30.8%), consumed three times a week. Bread is mainly eaten by fathers four times a week (82.1%), while dairy products are consumed with the same frequency by 84.6% of respondents. On the other hand, fathers consume sweet foods mainly 1-2 times a week (55%), only 17.5% consume this type of food 3-4 times a week, and the same proportion was found among those who eat it every day.

In relation to sports and physical activities, 40% affirmed they practice sports regularly, mainly running and soccer (7.7% of the subjects in both cases). Almost half of them never walk or almost never (47.5%), similarly to the amount of those who spend five hours or more a day sitting down (42.5%). Regarding their sleep habits, 55% revealed they sleep 7-8 hours, while 42.5% of them sleep 6 hours or less.

Analyzing the questions and answers related to body self perception, it was found that 50% believe they are an adequate weight, compared to 35% who think they are overweight, and 7.5% who see themselves as fat, the same proportion consider themselves as thin. In turn, 35% of the subjects said they had been on a diet at some point, and only 10% admitted that they were teased about their bodies at least once.

Finally, based on the answers provided by the fathers to the IMAGEN questionnaire, 10 of them exceeded the cutoff point, in other words, 19.2% of the sample, according to the answers given, showed a significant body dissatisfaction.

Healthy habits of boys and girls

In this case, the present study relied on the information provided by 52 fathers and/or mothers about the habits of their children, but the participants who answered the questionnaire were mostly mothers (86.3%).

In general, the results revealed that the children taking part in the survey eat all the meals of the day, except one, who do not have breakfast, and two who do not have lunch. In addition, 25% of children eat in the dining room, while 9.6% of them eat at school occasionally. Half of the children eat the meals with their families, while in the case of dinner this percentage reaches a value of 86.5%.

Regarding the products consumed by children at breakfast, the consumption profiles are very varied, but the following information stands out due to its interest related to a balanced diet: 75% of children do not consume fruit or juice in this meal, 19.2% eat pastries and 67% eat cookies.

Furthermore, when parents are asked what are the three types of foods preferred by children, pasta (53.8%), meat (46%) and egg (38%) stand out. The three least popular foods are the following: vegetables (7.7%), hamburgers (13.5%) and sweets (11.5%). In addition, considering the frequency with which different types of food are consumed, white and red meat stand out for their high frequency (76.9% and 63% of participating children, respectively, consume 2-3 times per week), compared to pasta or legumes (consumed in both cases by 44.2% of children 2-3 times per week). Sweets, on the other hand, are “occasionally” consumed by 88.5% of the children, and only 5.8% eat goodies every day. Fruits, in turn, are consumed by 55.8% of the participants once a day, while 28.8% eat two pieces a day and only 7.7% eat three or more. Regarding vegetables, 51.9% of children consume green goods 2-3 days a week, while a quarter do it once a week, and only 19.2% consume once a day.

Concerning children’s weight, it seems that most of the participants consider their child to be just about the right weight (65.4%), compared to a minority that believes their boy or girl should gain weight (26.9%) or lose it (7.7%). Finally, according to the information provided by the parents, almost half of the children sleep between 10 and 13 hours (49%), followed by those who sleep between 7-9 hours (47.1%), and last but not least, those who sleep less than seven hours (3.9%).

Relationship between healthy habits and body image of parents and children’s habits

Besides identifying separately the main characteristics of the habits in these groups, the present study aimed at analyzing the possible relationship between similar variables in the three groups. To this end, two correlation analyses (Pearson’s R) were performed between the different selected variables, recoding, for this purpose, the categories of food consumption frequency in the form of continuous variables. The relationships that were analyzed according to this concept are:

- *Frequency of fruit consumption fathers-mothers-children:* the results indicate that there is no relationship between the frequency of consumption of this type of food by the three members of the family. However, as shown in Table 1, the percentage that consumes three pieces of fruit is similar between mothers and children (around 8%).
- *Frequency of vegetables consumption fathers-mothers-children:* there is a moderate but significant relationship between the consumption of this food by children and the frequency of consumption of their mothers and fathers ($r = 0.359$, $p < 0.01$ and $r = 0.357$, $p < 0.05$, respectively). That is, the more vegetables fathers and mothers consume, the more their children do it as well. On this occasion, the percentage is similar in the three groups (approximately 20%).

- *Frequency of consumption of sweets (fathers and mothers) – pastries at breakfast and goodies (children):* First of all, it was found a significant and average ratio in the amount of sweets consumed by fathers and mothers (0.461, $p < 0.01$). However, this habit is not related to the consumption of pastries at breakfast or sweets by children.
- *Hours of sleep fathers-mothers-children:* children's hours of sleep do not seem to be related to those of their parents, but there is a significant mean correlation between the amount of sleep of the parents ($r=0.488$, $p < 0.01$). Moreover, according to the information provided by the parents, 40% of children between 3-5 years of age sleep less than nine hours, as shown in Table 1.
- *Perception on the weight of the mother-father-child:* it seems that there is no relationship between the perception that parents have of their own bodies with each other, nor with respect to their children's.
- *Father-mother body dissatisfaction:* the corresponding correlation analysis indicates that there is a high and significant relationship between the corporal dissatisfaction of both parents, measured through the total score obtained in the IMAGEN questionnaire ($r=0.612$, $p < 0.01$).

Discussion

Overall, the data collected indicate that mothers, fathers and children have some life habits that could be considered counterproductive to their health, many of which are variables that the scientific literature has identified as risk factors for developing overweight and obesity in childhood and adulthood, as well as eating disorders.^{20,21,31,32}

According to these data, it seems that the relevant role is still played by mothers in terms of child feeding, since they have the prime responsibility for making the grocery lists, preparing the menus and cooking, although some fathers are also involved in these chores. These results should be taken into account in action plans geared towards promoting healthy lifestyles, since the difficulty reconciling family and professional life is a burden that women still bear¹², resulting in higher levels of stress.¹³

In relation to eating habits, both mothers and fathers seem to consume less fruits and vegetables than recommended by the WHO and other health institutions.^{27,28} Besides, they have a higher protein intake than what is recommended, especially with regard to red meat, and they also eat significant percentages of sweets relatively often. These results are in consonance with those reported by the Spanish Nutrition Foundation.²⁸

Analyzing the data on physical activity, mothers and fathers do not seem to take some time to practice sports on a constant basis. The sedentary lifestyle is also evidenced by a lack of engagement in other physical activities of low intensity, such as walking. This lack of activity is unfortunately

accompanied by the long hours people spend sitting down each day, and a particularly low rate of sleeping hours and totally far, in most cases, from the appropriate standards to ensure health and well-being.²⁸ In practice, about 80% of women do not practice sports in comparison with 46% of men; in addition, almost half of the women affirmed they sleep less than five hours and 40% of the fathers less than six hours. Once again, women seem to have less time to take care of their health.

To complete this scenario regarding lifestyle habits, one must add, unfortunately, a negative perception of one's own body, with high percentages of body dissatisfaction in women and men, although higher in the first group.^{17,18} All these elements set the stage for a public health issue, as the participants surveyed seem to be at significant risk of suffering from diseases related to overweight and obesity, eating disorders, as well as others illnesses associated with the consumption of unbalanced foods and the adoption of a sedentary lifestyle.^{15,20,21,23}

Focusing the analysis on the information provided by the parents regarding their children attending early childhood education centers, the results are not encouraging, as it was expected a certain parallelism between them in terms of healthy habits. Only a few consume three pieces of fruit a day, a similar finding to that observed among fathers and mothers. However, a high consumption of meats and a low intake of vegetables and legumes was observed. Like their mothers and fathers, the frequency of fruits and vegetables consumption^{27,28} among the children surveyed does not reach the levels recommended by the WHO, in most cases. For example, only 19.2% of children consume vegetables every day, something that only half of the participants do with fruits.

In relation to sleep habits, approximately half of children between 3-5 years of age sleep less than nine hours, and this is an insufficient amount of sleep.³⁸

Finally, it should be noted in this case that most fathers and mothers consider that their child to be just about the right weight, with a very small proportion of those who believe that their kids should lose weight.

Considering the correlation between the healthy habits of the three family subgroups surveyed (fathers, mothers, children), some interesting and expected relationships were detected, such as that one found between vegetable consumption in children and their parents. This relationship is undoubtedly connected with family meals, as well as with a social learning effect that means that children may imitate their parents' behaviors. It seems clear that if children do not see their parents eating vegetables, they will not show much interest in doing so, even if they put it on the plate.³⁰⁻³³

On the other hand, although quantitatively no significant correlation appears between the sleeping hours of parents and children, they do appear to be insufficient in both adults and children. Contrastingly, although fathers and mothers show high levels of body dissatisfaction, this is not projected in the way they see their children's bodies, although there is a relationship regarding the high values found between the body image of father and mother.

In short, all these data seem to indicate the presence of some unhealthy life habits in most of the adults surveyed that should be considered in future researches geared towards the study of the consequences on the quality of life of families and children.

Concluding remarks

According to the initiatives presented in the first part of this article, which argue that health promotion strategies should be carried out by different public institutions, it is believed that these strategies should include codes of conduct directed at individuals, as well as broader social, political, community and even economic measures that allow families to have wholesome habits and more a positive relationship with food and their own bodies.^{9,24}

For example, the fact that a great part of the surveyed sample affirmed that they sleep for only a few hours, do not practice any physical activity and spend many hours a day sitting down, certainly indicates a lifestyle that has little to do with their wishes and preferences, and more with the family status of great part of the society nowadays, i.e. people who are overwhelmed at work, burdened with household chores and having little time to include other healthy and pleasant activities in their daily routine. Thus, it seems clear that, as proposed by the European Union,¹⁰ new measures, when put into practice, should do more than just inform the subjects about their individual responsibility, but also include actions in the fields covered by the institution (individual, family, community and school) aimed at, for example, other strategies such as policies for reconciling family, personal and work life; enhancing physical activity spaces in the urban and even in work environments; the implementation of measures to reduce stress and improve the quality of life in general, etc. In this regard, special emphasis should be placed upon the equitable distribution of domestic tasks between women and men, ensuring a better quality of life.¹²

The promotion of a healthy lifestyle must also help individuals develop a sane and balanced body image,^{15,22,23} that does not have to be a source of stress, but something that allows them to relate to their own bodies, using food and physical activity in a positive and healthy way. Although the present study could not assess the body image of the participating children, it is expected that some of them have already begun to internalize in these early stages the negative opinions that their fathers and mothers have about their own bodies, who, as we have seen, show high rates of body dissatisfaction in some cases. Therefore, it is absolutely necessary that preventive actions aimed at children and their families take into account the positive development of body image. Perhaps for the age range studied, the educational environment could be the ideal place to start implementing actions aimed at breaking down stereotypes associated with body and gender and thus allowing children to grow in harmony and balance.^{15,22-24}

Taking into account all these findings, the current prevention strategies that are carried out in several countries should broaden the focus of intervention and, if competent authorities provide financial resources and have a genuine interest in reducing obesity rates, they should take a comprehensive view of the different social realities. An adult population, who regularly got less than five or six hours of sleep, should not be asked to practice sports and to find time to look after their diet. They should not be asked because, instead of developing healthy habits, guilt is generated in a society that, we insist, cannot develop habits that bring them closer to a healthy lifestyle due to several circumstances, and this is not just a matter of will. Thus, a more global change must be offered, so that people can reconcile the different areas of life. In this way, it seems far more likely that fathers and mothers will be able to educate, enjoy and accompany their children throughout life.

Collaborators

The authors Solano- Pinto N, Solbes- Canales I, Fernández- Cézar R, Calderón- López S and Pozo- Bardera C were involved in all stages of the project, from the study design to the review of the final version of the article.

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