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Surveillance of dietary habits and lifestyles among 5–6 year-old children and their families living in Central-North Italy

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Summary

Objectives: To study dietary habits and behaviours of a representative sample of 5–6-year-old children and their families.
Methods: A stratified population sample of the general population (5508 children out of 5551 residents) born in 1997 and attending a nursery school was analysed. Weight and height were measured. Information was collected via questionnaire. A "normal" body mass index (BMI) ranged between 13.61–18.09 and 13.31–19.79 kg/m^2 for boys and girls respectively.
Results: The response rate was 89%. 79% of the boys had a normal BMI, 0.9% had a low BMI, 18% were overweight, and 1.8% was obese; 87% of the girls had a normal BMI, 2.6% had a low BMI, 10% were overweight, and 0.7% were obese. The main sources of dietary information were professionals of the national health system and mass-media. The main barriers to healthy dietary habits were busy daily activities, working timetable, time needed to cook and tasty and healthy food cost. The main changes in dietary habits occurred in the family habits after a child's birth.
Conclusions: Our findings showed a crucial role played by professionals of the national health system and by mass-media on eating behaviours among children and their parents. Birth of a child is a receptive context to promote healthy habits.

Keywords: **Nutrition-related behaviour – Eating habit – Pre-school children – Health information – Television.**

The nutritional surveillance aims to monitor nutritional status, trends in related diseases or mortality and eating habits of the population. Surveillance data allow planning effective public health actions aimed at promoting healthy dietary habits and lifestyle (WHO 2003). In this way, advantages on health and costs reduction might be achieved.

However, information and education interventions to promote healthy lifestyle cannot put aside knowledge and understanding of the factors affecting individuals' and their families' nutritional choices and behaviours (Kunkel et al. 1986; Probart et al. 1989; Medeiros et al. 1991). Population surveys are useful means to collect these kinds of information via questionnaires and/or structured interviews.

The prevalence of child obesity is increasing rapidly worldwide as a global epidemic that will have profound public health consequences as overweight children become overweight adults, up to 72% and 85% for children with one or two obese parents, respectively (WHO 2003). Body mass index (BMI) can be used to screen pre-school children for overweight or obesity (Mast et al. 2002). Moreover, it has been shown that the BMI cut-off points – based on a heterogeneous worldwide population – can be applied widely to determine whether the children and adolescents they identify are at increased risk of morbidity related to obesity in adulthood (Cole et al. 2000; Guo et al. 2002), in particular if associated with high parental BMI (Whitaker 1997). The close monitoring of children BMI trends is relevant in public health.

A public health survey on nutritional status and eating habits in pre-school children (5–6-years-old) has been carried out in an Italian Central-North region. The study was labelled So.N.I.A (Sorveglianza Nutrizionale Infanzia e Adolescenza [Childhood and Adolescence Nutritional Surveillance]) (Albertini et al. 2003). This is an ongoing study based on repeated cross-sectional assessments.

In this paper, we present the preliminary data assessed in a representative sample of 5–6-year-old pre-school children and their families living in the province of Modena that is

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part of the So.N.I.A. study. In particular, we explored the main factors associated to their nutrition behaviours.

Subjects and methods

Study protocol

The children born in 1997 attending the nursery school were 5508 children (out of 5551 children of that age resident in Modena province). A stratified population sample was analysed. The study was carried out in May 2003 (children aged from 5–6 years). We measured weight and height of children in the sample. Information was collected – via a questionnaire filled in by the parents – about the children's and their parents' eating habits, and parents' preferences and behaviours. The researchers did attend a preliminary course to standardise the procedures.

Sampling plan

At the beginning of the 2002–2003 academic year a census was done to know the number of children born in 1997 attending the 218 nursery schools in the province. Before the sample selection, the schools were classified both for kind of territory, i.e. urban, rural, mountain area in order to account for known differences in nutrition and physical activity, and for public or private institutes. For each homogeneous school group, we accordingly computed the cumulative number of pupils. After that, we attributed a number to each school for sampling purposes. We used the following formula: $X = \left| \frac{No.\ Min}{m} \right| + 1$ where, *No. Min* is the minimum number of pupils attending one school, and *m* is the mean pupils number per school, and the *vertical bars* indicate that if the result is a "decimal number" we will consider only its "integer". Thereafter we computed the range of number of pupils to sample per school, i.e. the higher the total number of pupils attending a school the larger the range. To sample the schools we started from a random number and selected it with as many "sequences" as schools were required and choose them within the range in which the "sequence" was contained. This procedure enabled us to obtain a self-weighting sample that allows estimating prevalence avoiding the need for data correction. In order to ensure a 2% precision level of BMI estimate in our population, we expected to enrol 268 children from 11 schools. The final sample consisted of 295 pupils from 12 schools.

Measurement techniques

Height and weight were measured by two previously trained dieticians according to the recommendations of the World Health Organization (WHO 1995). All children were evaluated in the morning, in minimal underclothes. Height was measured without shoes to the nearest centimetre using a wall-mounted measuring board, and weight was recorded without shoes and coat to the nearest 0.1 kg using a standard floor-model beam scale. BMI was calculated using the formula: weight (kg)/height (m^2). We obtained the cut-off points of BMI from the adapted Italian centiles (Cacciari et al. 2002) based on the international method that links children dataset centiles to the widely accepted adult cut-off points of a BMI of 25 for overweight and 30 kg/m^2 for obesity (Cole et al. 2000). Children's anthropometrics were classified, based on their actual age, as low weight if having a BMI lower than the 3rd percentile, i.e. <13.6 kg/m^2 for boys and <13.3 kg/m^2 for girls; normal a BMI ranging from 13.61 to 18.09 kg/m^2 for boys and from 13.31 to 19.79 kg/m^2 for

Table 1 Children's characteristics

Variable	All (n = 262)	Boys (n = 111)	Girls (n = 151)
Age (year) (mean ± SD)	5.9 ± 0.3	5.9 ± 0.4	5.9 ± 0.2
Weight at birth (kg) (mean ± SD)	3.2 ± 2.1	3.5 ± 3.0	3.0 ± 1.0
Actual weight (kg) (mean ± SD)	22.6 ± 4.4	23.3 ± 4.5	22.2 ± 4.4
Actual height (cm) (mean ± SD)	116.0 ± 5.7	117.3 ± 5.6	115.2 ± 5.7
Actual BMI (kg/m^2) (mean ± SD)	16.7 ± 2.2	16.9 ± 2.2	16.6 ± 2.3
Normal BMI		79.3%	86.7%
Overweight[a]		18.0%	10.0%
Obese[a]		1.8%	0.7%
Low weight <3rd pctile[a]		0.9%	2.6%
Physical activity in an index day (hrs/day):			
Sleeping	9.8 ± 1.0	9.3 ± 2.3	9.5 ± 1.8
School	6.9 ± 1.5	6.4 ± 2.2	6.7 ± 1.8
Light activity[b]	4.1 ± 1.6	3.6 ± 1.8	3.9 ± 1.7
Moderate and vigorous activity[b]	3.2 ± 1.4	3.0 ± 1.8	2.9 ± 1.3

[a] Boys: low weight BMI<13.6 kg/m^2, overweight BMI>18.1 kg/m^2, obese BMI>23.1 kg/m^2. Girls: low weight BMI<13.3 kg/m^2, overweight BMI>19.8 kg/m^2, obese BMI>24.1 kg/m^2

[b] Light activity: watching TV, reading, eating, washing, video games, etc. Moderate-vigorous activity: walking, bicycle, gymnastics, dance, outdoor games, etc.

girls; overweight a BMI ranging from 18.10 to 23.09 kg/m^2 for boys and from 19.80 to 24.09 kg/m^2 for girls; obese a BMI of 23.1 or greater for boys and of 24.1 or greater for girls.

Questionnaire

Although based on international instruments (Willett et al. 1985; Gardner et al. 1991), and on indications of the Italian National Institute of Nutrition (INRAN), the questionnaire contained some original items. For this reason a pilot sample (n = 20) was conducted to test its validity. Cronbach's alpha global value was 0.912, varying from 0.887 to 0.943 through the questionnaire's sub-sections. The majority of the answers were closed with a wide option range. The teachers disseminated and collected the questionnaire to and from parents. Teachers had been previously informed of its contents and compilation procedure. If possible, the mother was requested to fill in the questionnaire.

General information about the study aims and instructions to fill in the questionnaire were given through a letter addressed to the parents. In order to ensure the privacy and full parental collaboration the questionnaire did not request information regarding the child (name, surname, date and place of birth). The survey personnel labelled each returned questionnaire using an identification code to allow no tracing the subject's identity.

The questionnaire aimed at collecting information about family composition, children and their family dietary habits, along with parental influence on their children's eating habits. It also aimed to clarify the main sources of dietary information and other factors influencing dietary preferences and nutrition behaviour.

Furthermore, it had a section exploring food frequency consumption (data not presented here). The collected data were inputted into an electronic database by trained operators (dieticians).

Statistical analysis

We analysed only complete – i.e. anthropometrics plus questionnaire items – database records. We computed descriptive statistics according to an observational cross-sectional design. Age- and sex-adjusted associations between the study variables were analysed by means of a multiple logistic regression according to a stepwise backward hierarchical selection (p = 0.2 for removal). We used a chi-squared test to test for differences in the characteristics' frequency distribution between mothers and fathers. STATA® for Windows statistical package (release 7.0) was used. All the results are presented as means ± standard deviation (SD) for continuous variables, and as count and/or percentage for categorical variables. 5% was the level of significance accepted, and it has been expressed by means of 95% confidence intervals (CI) or as $p < 0.05$.

Results

We administered the questionnaire to 295 children's families included in the survey. The response rate was 89% (262 out of 295). The 262 complete records were analysed. The total number of children per family ranged from one child to five children. Most families had one (25%) or two (58%) children. The characteristics of children are described in Table 1. 79% of boys and 87% of girls had normal BMI, and very few of them were in the low weight or obese BMI category. They spent on average 3.2 hours per day on moderate or vigorous physical activity such as walking, bicycle, gymnastics, dance, outdoor games, etc. About a half of them (43%) did attend regular courses for aerobic exercise (2.1 ± 1.0 hours per week on average).

Prevalence of breastfeeding was 56% and allergy or food intolerance was 19%. Only 5.4% of the children were on special diet for religious, ethnic or pathological reason. Most children took dietary supplements such as vitamins (34%), minerals (10%) and iron (16%) (data not shown).

Parents' characteristics are shown in Table 2. Based on their family profile, children were from medium-high socio-economic class, i.e. more than 50% of their parents had at least a high school grade and a medium-high level job.

Family dietary habits are summarised in Table 3. The vast majority of meals are cooked by the mother. The main common family meal is dinner. Half of them go to the restaurant at least once per month, and half did not but in special occasions or rarely. The habits to have dinner together (exp. beta 7.75; 95% CI 1.61 to 37.2) and watching TV during the meal (exp. beta 1.55; 95% CI 1.02 to 4.50) were associated to information from TV/radio. On the contrary, the less the family have dinner together (exp. beta 0.25; 95% CI 0.70 to 0.82) the more book/specialised print was the main source of information.

Parents' attitude to cope with a child refusing to eat was directly associated to father's education (exp. beta 1.78; 95% CI 1.10 to 2.86), and inversely related to father's age (exp. beta 0.54; 95% CI 0.30 to 0.96), actual child BMI (exp. beta 0.86; 95% CI 0.75 to 0.98), and mother's cooking (exp. beta 2.06^{-8}; 95% CI 8.05^{-10} to 5.27^{-7}).

A third of parents' knew what iodated salt is and 40% of them did use it. Most parents (81%) state that the TV is on during the meals. Sometimes (55%) parents give to the child local traditional food. As to food presentation, we found that a high consumption of frozen and native/traditional food (exp. beta 2.12; 95% CI 1.0 to 4.5) and a low intake of

Table 2 Parent's characteristics (n = 262)

Variable	Mother	Father
Age class		
<30 years	9.9 %	3.6 %[a]
30–39 years	66.7 %	48.0 %[a]
40–49 years	23.4 %	48.0 %[a]
>50 years	0.0 %	0.0 %
Weight (kg) mean ± SD	60.8 ± 9.3	79.9 ± 10.7
Height (cm) mean ±S D	163.9 ± 6.1	176.5 ± 6.8
BMI (kg/m2) mean ± SD	22.7 ± 3.2	25.6 ± 3.0
Origin:		
Central-North Italy	74.0 %	72.7 %
South and Islands Italy	18.0 %	22.9 %
Foreign Country	8.0 %	4.5 %
Education:		
None	0	0
Elementary	3.5 %	2.3 %[a]
Primary	34.9 %	41.6 %[a]
Secondary	50.0 %	43.9 %[a]
Degree	11.6 %	12.2 %[a]
Occupation:		
Manager, executive	6.6 %	24.1 %[a]
Clerical, teacher	37.0 %	27.6 %[a]
Dealer, artisan	10.9 %	17.5 %[a]
Blue-collar worker	18.7 %	24.9 %[a]
Housewife, retired	22.2 %	0.4 %[a]
Unemployed	2.3 %	0.8 %[a]
Other	2.3 %	4.7 %[a]

[a] P < 0.001 Mother vs Father

Table 3 Family dietary habits

Variable	No.	%
Household member cooking [multiple choice allowed]		
Mother	249	64.3
Father	67	17.3
Grandfather	0	0.0
Grandmother	60	15.5
Brother/sister	7	1.8
Other	4	1.1
Common family meal(s) [multiple choice allowed]		
Breakfast	82	19.8
Lunch	67	16.1
Dinner	232	55.9
All the three meals	34	8.2
Frequency of restaurant visit		
At least once per month	130	50.0
Never, Rarely, Only in special occasion	122	46.9
missing	8	3.1
Parents' behaviour if the child refuses to eat		
I force him to eat	8	3.1
I propose an alternative food	82	31.5
I try to induce him to accept undesired food	99	38.1
I do not insist	59	22.7
missing	12	4.6
Knowledge of prescription of iodated salt	78	30.0
Iodated salt usage	103	39.7
Frequency of TV on during the meals		
Never	41	15.8
Sometimes	65	25.0
Frequently	146	56.2
missing	8	3.1
Frequency of preparing local traditional foods		
Never	16	6.2
Sometimes	144	55.4
Frequently	88	33.8
missing	12	4.6
Type of food used for cooking [multiple choice, top five]		
Fresh food	220	41.5
Frozen food	148	27.9
Canned food	56	10.6
Bio-, natural food	51	9.6
Packed food	22	4.2
Other	33	6.5
Frequency of child's request to purchase foods publicized on T.V.		
Never	34	13.1
Sometimes	178	68.5
Frequently	11	4.2
Always	29	11.2
missing	8	3.1
Frequency of parents positive reply to a request		
Never	27	10.4
Sometimes	189	72.7
Frequently	13	5.0
Always	4	1.5
missing	27	10.4

fresh food (exp. beta 0.34; 95 % CI 0.12 to 0.96) was associated to TV/radio. A low consumption of canned food (exp. beta 0.40; 95 % CI 0.16 to 0.85) was associated to public National Health System (NHS) professionals. A high consumption of enriched food (exp. beta 14.7; 95 % CI 1.77 to 121.8) was associated to book/specialised print. Parents state that the child sometimes (68 %) asks them to purchase foods publicized on TV, and parents sometimes (73 %) give a positive reply to such a request.

Tables 4 and 5 describe the main dietary changes that occurred at family level after the child's birth, and the main marries to healthy dietary habits as perceived by the parents. Respondents could choose up to five answers to each question. The main dietary changes that occurred after the child's birth were health-oriented (Tab. 4). In fact, the parents pay attention to avoid additives and chemical products in the diet, to increase the consumption of fruits and vegetables and decrease the intake of high fat foods. They also increase water consumption and have regular mealtimes avoiding prolonged fast. The top five choices accounted for 60.7 %.

The five main barriers to healthy dietary habits were busy daily activities, working timetable, and more time needed to cook healthy food together with taste preferences and healthy food is expensive. The top five choices accounted for

Table 4 Main changes in family dietary habits occurred after the child's birth [max. 5 choices allowed]

Rank		No.	%
1	Avoidance of additives, chemical products	120	14.7
2	Increased fruit and vegetable consumption	112	13.7
3	Avoiding prolonged fast	101	12.4
4	Reduced fat food consumption	100	12.2
5	Increased water consumption	63	7.7
6	Increased milk, yoghurt, dairy products consumption	59	7.2
7	Increased fish consumption	53	6.5
8	Reduced salt consumption	43	5.3
9	Reduced sugar/sweets consumption	34	4.2
10	Avoiding snacks	31	3.8
11	Reduced tea/coffee consumption	28	3.4
12	Increased rich-fibre food consumption	27	3.3
13	Reduced food portion size	10	1.2
14	Increased meat consumption	9	1.1
15	Reduced meat consumption	8	1.0
16	Reduced bread/pasta consumption	6	0.7
17	Reduced milk, yoghurt, dairy products consumption	3	0.4
18	Greater variety of food	3	0.4
19	No change	7	0.9

Table 5 Main barriers of parents to follow healthy dietary habits [max. 5 choices allowed]

Rank		No.	%
1	Busy daily activities	101	20.3
2	Working timetable	82	16.5
3	Taste preferences	70	14.1
4	More time needed to cook healthy food	44	8.9
5	Healthy food is expensive	40	8.0
6	Healthy food is less palatable	30	6.0
7	Lack of willpower	24	4.8
8	Low culinary skills	24	4.8
9	Low knowledge on healthy food	18	3.6
10	Varying experts' opinion	17	3.4
11	Healthy food is more perishable	14	2.8
12	Healthy food is very far from our feeding style	14	2.8
13	Unwilling to change	7	1.4
14	None	12	2.4

67.8%. The five main factors affecting the parents' choices, accounting for 84%, were: healthiness of the food (23%), food composition (18%), whole family preferences (16%), safety (14%), and taste (13%).

The five main sources of parents' nutrition information, accounting for 68%, were: NHS professionals (paediatrician, general practitioner, nurse and dietician) (19%), newspapers/magazines (15%), TV/radio (13%), pack/label (12%), and book/specialised print (10%). Consumers' organisations (1.7%) and public authorities (0.6%) were shown to have no importance. A high education level of the father was associated to information from public NHS professionals (exp. beta 1.44; 95% CI 1.10 to 1.88) whereas a low mother education was associated to information from pack/label (exp. beta 0.70; 95% CI 0.55 to 0.89).

Discussion

Overall, the survey gave a picture of our pre-school children and their families' nutrition behaviours. The pre-school children had acceptable BMI. We used the Italian adaptation of international specific BMI cut-off points for children (Cacciari et al. 2002). Italian cut-offs are higher than Cole's ones (Cole et al. 2002) because pre-pubertal Italian children are 2–4 cm taller than English peers. As for weight, Italian girls are heavier than their English peers during childhood and adolescence and Italian boys during the whole growth period, with larger differences in the 97th centile: 5–8 kg for girls and 6–16 kg for boys. Italian centiles for BMI are also higher than French norms (Rolland-Cachera et al. 1991). The large difference in the 97th centile (up to 6.6 kg/m^2) suggests that French norms are not suitable for the Italian population (Cacciari et al. 2002).

As was shown in Table 2, based on their parents' characteristics, children families were from medium-high socio-economic class. Despite these advantageous parental profile, and an overall normal BMI, 59% of children did take dietary supplements. This last finding was unrelated to children's BMI or special diseases/conditions either at birth or actually. Therefore, even if further research is needed to explain such a high oral supplements use, it should be addressed by paediatricians which are the main source of information for families. Dietary supplements should prevail among chronically ill children, especially among those with a poor prognosis or for whom there are limited medical treatments (Ball et al. 2005). Few paediatric health care providers are aware of their patients' use of non-prescribed supplements. This is a concern because of the unknown effects of many supplements on growth and development and the potential for adverse drug interactions.

Most families prefer to eat at home, what might be interpreted as a healthy choice – due to children presence – rather than a marker of income trouble. Habitually, the mother decides what foods the family will eat and prepares the meals. Most parents show an active/educative attitude to cope with a child refusing to eat. The importance of familiarity/exposure on food acquisition patterns has been investigated (Birch 1999). Early experience with food and eating is crucial in the development of food acceptance patterns, both in terms of the acquisition of food preferences and the regulation of food intake. Children are initially more reluctant to taste the new or unfamiliar foods; however, it was observed that preference increased with exposure.

Families are a major source in determining whether or not children learn successfully and they exert a strong influence on a child's diet. The types of food adults choose for themselves and for their children are influenced by more than personal taste, attitudes and nutritional knowledge (Watt et al. 2001).

In our study, a young and educated father showed to play a role in promoting healthy eating habits and thinner children. Most of literature data focused on mother's education or age. Nevertheless, the fathers are very important in shaping children's food preferences and eating habits. When heads of households have higher educational levels, nutrition knowledge is increased and the meals in the home become more rational and diversified (Leonard 1984; Anliker et al. 1990; Watt et al. 2001). Studies on father's age impact on children dietary habits are lacking.

In Italy, NHS provides care to children aged 0–14 years through primary care paediatricians and general practitioners for adults. NHS use primary care professionals also as mediators to promote healthy dietary habits. In fact, public NHS physicians, nurses and dieticians were recognised as the main source of nutritional information whereas public government authorities and consumers' organizations were not. As for promotion of healthy eating habits, a father with high education was associated to information from public NHS professionals whereas a low mother education was associated to information from pack/label.

Data on the relationship between eating habits and mass media have been reported from others (Andersen et al. 1998; Dietz & Gortmaker 1985; Gortmaker et al. 1996). We found that 81 % of the parents state that the TV is ON during the meals. Furthermore, in our study about 13 % (39 out of 295) of the children were classified as overweight or obese by BMI. These findings are limited because of the cross-sectional study design; nevertheless, they are consistent with literature. Although other observational studies did not report significant association (Locard et al. 1992; Robinson et al. 1993; DuRant et al. 1994), a randomised trial showed that reducing the use of television, videotape, and video game did shift the entire distribution of adiposity downward (Robinson 1999).

As to factors affecting food choice, these data depict parents who pay attention to food safety and quality, even more after their child's birth. In fact, the main family dietary changes occurred after the child's birth were health-oriented and in line with current dietary recommendations. Maybe, parents are more sensible for specialised information that may help their children to grow up in good health. This indicated that the birth of a child is a sensible situation to promote healthy habits through health services and public health professionals.

Nevertheless, parents' stated that busy daily activities and working time are the main barriers to healthy dietary habits. Hence, they perceived healthy habit as a burden rather than a pleasant behaviour and expressed a rather therapeutic view of healthy lifestyles.

Our study has a main limitation which has to be acknowledged. Relying on a cross-sectional survey, our findings might be affected by selection bias since *by indication* we did use a random school sampling not an individual one. Nevertheless, it may provide useful information to tailor future programs to promote health dietary habits among pupils and their families.

In conclusion, our findings are preliminary observations of a representative sample of Central-North Italian pre-school children. They indicated that NHS professionals and mass media may have a considerable impact on nutrition behaviours of children and their parents. Moreover, a paternal high educated level plays a significant role in promoting family's healthy eating habits, and child's birth is a good opportunity to promote healthy nutrition behaviours.

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Zusammenfassung

Surveillance des Ernährungsverhaltens und Lebensstils bei 5- bis 6-jährigen Kindern und deren Familien in Zentral-Nord-Italien

Fragestellung: Ernährungsverhalten und Lebensstil einer repräsentativen Stichprobe von 5- bis 6-jährigen Kindern und deren Familien untersuchen.

Methoden: Eine geschichtete Bevölkerungsstichprobe (n = 295 Familien) der im Jahr 1997 geborenen Kinder, die den Kindergarten besuchten, wurde untersucht. Körpergewicht und -grösse wurden gemessen. Normalgewicht entsprach einem BMI im Bereich 13.61–18.09 kg/m² für Knaben und einem BMI im Bereich 13.31–19.79 kg/m² für Mädchen.

Ergebnisse: Die Antwortrate der Eltern betrug 89 %. Gemäss BMI waren 79 % der Knaben normalgewichtig, 0,9 % von niedrigem Körpergewicht, 18 % übergewichtig und 1,8 % adipös. Bei den Mädchen waren 87 % normalgewichtig, 2,6 % hatten ein niedriges Körpergewicht, 10 % waren übergewichtig und 0,7 % adipös. Die Kinder stammen aus Familien mit mittlerem bis hohem sozioökonomischen Status. Mehr als 50 % der Eltern haben im Minimum eine Ausbildung auf Matura-Niveau und Jobs mit mittlerem bis höherem Berufsstatus. Die Hauptquelle für Ernährungsinformationen waren Anbieter des nationalen Gesundheitswesens und Massenmedien. Nach der Geburt eines Kindes veränderten Familien ihre Lebensgewohnheiten im positiven Sinne. Die Haupthinderungsgründe für gesunde Ernährungsgewohnheiten waren auslastende Alltagsaktivitäten, die Arbeitszeiten und die Zeit, die für das gemeinsame Kochen von gesundem und schmackhaften Essen benötigt würde sowie die Kosten für sog. gesunde Nahrungsmittel.

Schlussfolgerungen: Unsere Ergebnisse zeigten, dass die Anbieter des öffentlichen Gesundheitswesens und Massenmedien einen entscheidenden Einfluss auf die Verzehrgewohnheiten von Kindern und deren Eltern nehmen. Die gute Ausbildung der Eltern spielt eine signifikante Rolle bei der Förderung von gesunden Essgewohnheiten. Die Geburt eines Kindes ist ein Kontext, in dem Familien für gesundheitsförderliche Massnahmen empfänglich sind.

Résumé

Surveillance des comportements alimentaires et des modes de vie des enfants de 5-6 ans et de leurs familles en Italie (Centre nord)

Objectifs: Etudier les comportements alimentaires et des modes de vie d'un échantillon représentatif d'enfants de 5–6 ans et de leurs familles.

Méthodes: Analyse auprès den 5508 enfants sur 5551 habitants, nés en 1997 et allant dans une école enfantine. Le poids et la taille ont été mesurés. Les autres informations ont été récoltées par questionnaire. Pour les enfants de cet âge, un Body Mass Index (BMI) est considéré comme normal entre 13.61–18.09 kg/m² pour les garçons et 13.31–19.79 kg/m² pour les filles.

Résultats: Le taux de réponse est de 89 %. 79 % des garçons ont un BMI normal, 0,9 % un BMI insuffisant, 18 % sont en surpoids, et 1,8 sont obèses. 87 % des filles ont un BMI normal, 2,6 % un BMI insuffisant, 10 % sont en surpoids, et 0,7 % sont obèses. Les principales sources d'information sont les professionnels du service de santé national et les mass-médias. Les principaux obstacles à l'adoption de comportements alimentaires sains sont des journées très chargées, les horaires de travail, le temps nécessité par la préparation des repas et le coût des aliments sains et savoureux. Les principaux changements dans les comportements alimentaires de la famille se produisent à la naissance d'un enfant.

Conclusions: Les professionnels du service de santé national et les mass-médias jouent un rôle prépondérant dans l'adoption des comportements alimentaires par les enfants et leurs parents. La naissance d'un enfant est un contexte propice à la promotion d'habitudes saines.

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