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Article

Maternal Self-Efficacy and the Relation with Children's Dietary Behaviors in the Digital Era

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Abstract

Mothers' behavior strongly influences children's eating habits, with family attitudes and feeding practices playing a key role in dietary development. In accordance with the previous literature, this study examined these aspects, including also mothers' use of social media to stay informed about nutrition as an innovative element. The main goal was to validate the Italian version of the PSEPAD scale (Parental Self-Efficacy for Promoting Healthy Physical Activity and Dietary Behaviors in Children), which is a valid and reliable tool for assessing parental self-efficacy in encouraging healthy lifestyles in children, through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The sample was composed of 217 mothers. Results were interpreted through groups comparisons (chi-square, ANOVA, and *t*-test). The findings confirmed the central role of mothers in managing children's diets and using strategies against picky eating behaviors. The study also highlighted the growing use of social media among mothers, especially younger ones, as a source of nutritional information, meal planning, and peer support, despite a generally low level of satisfaction with the content available on pediatric nutrition. Finally, the results showed a positive link between maternal self-efficacy and healthier child behaviors: mothers with higher self-esteem and confidence were more effective in promoting healthy habits. These findings underscore the importance of targeted interventions to strengthen maternal self-efficacy and the development of digital tools to support healthy family lifestyles.

Keywords: pediatric nutrition; mothers' behavior; eating habits; pediatric nutrition; social media use; online nutrition; mothers' self-efficacy; promoting healthy lifestyles

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1. Introduction

1.1. Eating Habits

Eating habits refer to a process that begins with individuals' attitudes towards food and continues through the stages of acceptance, selection, consumption, and finally, waste [1]. Establishing healthy eating habits in childhood provides a decisive basis for both physical growth and long-term health outcomes. During this developmental phase of life, children's

dietary patterns begin to take shape and often last into adulthood [2]. According to the World Health Organization [3], a healthy diet includes an adequate intake of fruits, vegetables, legumes, whole grains, and healthy fats, while reducing excessive consumption of free sugars, salt, and saturated and trans fats. Recent studies [4–6] underline the positive impact of quality childhood nutrition on both physical and mental health. A systematic review conducted by Dalwood and colleagues [6] highlights that children with a high diet quality index reported improvements in health aspects such as IQ, quality of life, blood pressure, body composition, and metabolic syndrome. In terms of mental health, Arvidsson and colleagues [4] suggest that children in Europe who eat a healthy diet have more self-esteem and fewer emotional and peer problems. Cohen and colleagues [5] also provide evidence of a positive association between healthy eating patterns and executive functions.

Despite this evidence, the prevalence of unhealthy eating behaviors in childhood remains a common concern for children and public health. It is known that unhealthy eating habits, such as the consumption of high-sugar and ultra-processed foods, is widespread in childhood and can negatively affect children's health. Some studies demonstrate that regular consumption of sugar-sweetened beverages is consistently associated with higher BMI, insulin resistance, and dental caries [7]. On the other hand, high consumption of ultra-processed foods is associated with increased risk of adiposity and obesity in children and adolescents [8]. At the same time, in terms of mental health, a systematic review conducted by O'Neil and colleagues [9] demonstrates the significant association between unhealthy eating patterns and poorer mental health in children and adolescents.

1.2. Eating Habits and Family

Eating habits acquired during childhood are largely shaped by the parents' attitudes and the influence of the family environment in which the child grew up [10]. Parents are the primary role models who have a strong influence on shaping children's eating habits and attitudes towards food [10]. Typical routines within the family, such as eating together and parents' feeding practices, are also key determinants in the formation of eating habits in early childhood. In a study predominantly involving mothers as the participants, Litterbach and colleagues [11] found that dinner was the meal children shared most frequently with their families, while snack time was the meal they shared least frequently. Another study conducted by Totland and colleagues [12] shows that amongst parents with 11-year-old children, breakfast and dinner were the meals children shared most often with their families. Family meals eaten together appear to allow parents to use various methods to shape children's eating behaviors. For instance, when children exhibit food refusal and become picky eaters, parents may change the course of their children's eating habits by implementing certain feeding practices. According to Chilman and colleagues [13], parents employ strategies such as offering foods repeatedly, using rewards and punishments, sometimes being forceful, offering alternative foods, keeping mealtimes calm and enjoyable, considering the child's preferences, and limiting mealtimes to cope with overly picky eaters. Another study conducted with the mothers of children exhibiting fussy eating behaviors found that strategies such as encouraging children, making food more appealing, reducing mealtime tension, limiting child control, and sharing feeding responsibility were used. Specifically, some mothers reported using games, entertainment, characters, or stories as strategies, such as pretending to eat their child's food, making airplane noises while eating, telling stories, or using characters from books or television to encourage their children to eat [14].

Having healthy foods in the family, along with the quality and frequency of shared family meals, also helps children to develop balanced eating habits [15–18]. For instance, Wolnicka and colleagues [19] found that children who had fruits and vegetables at home

and were encouraged by their parents to consume these foods tended to eat more fruits and vegetables. On the other hand, another study conducted by Santigo-Torres and colleagues [20] showed that children who had sugar-sweetened beverages at home and frequently watched TV while eating with their families had a lower healthy eating index. Furthermore, in a study [21] of family mealtimes with parents, the majority of whom were mothers, most reported that they rarely watch television while eating (75.5%) and generally emphasize talking and spending time together during meals. It was also found that more than 75% of participants had family meals at least five times a week, yet a considerable proportion stated dining out at restaurants (47%), consuming fast food (28%), or ordering takeout (23.8%) at least once a week. In a study comparing eating locations of children, Moreira and colleagues [22] revealed that most children ate at home and consumed more vegetables, fruit, and fish than other groups. In contrast, children who ate at restaurants made up the smallest group and consumed more cakes and salty snacks, along with fewer dairy products and vegetables. Interestingly, children who ate more at school had the best dietary adequacy index. Moreover, a study [23] of Italian primary school children showed that more than half of the children consumed sandwiches during recess at school, while 23.3% usually ate sweet snacks. Therefore, it should not be overlooked that eating at school plays a crucial role in the nutritional development of preschool and school-aged children, with the potential to shape their eating habits over time.

On the other hand, parents' product choices for their children may affect their path to balanced and nutritious development diets. A study conducted by Alsini and colleagues [24] highlights that 69% of mothers always or often read labels before purchasing. They tend to purchase a product based on its healthfulness, their child's preferences, and the specific needs of their family member. Furthermore, another study involving Italian mothers found that reading food labels before purchasing was associated with higher information seeking. Mothers who examined food labels were found to have a higher self-identification as healthy eaters. Having said that, it is also important to consider how mothers perceive their own eating habits, along with those of their children. Broilo and colleagues [25] found that mothers generally perceive their own dietary habits as unhealthy, while their children's diets are perceived as healthy and largely adequate. However, actual data suggest that the children's dietary quality is much lower than they believe. Another recent study [26] conducted in Finland examined data obtained from 738 parents of children between the ages of 2 and 6. The study results showed that parents who identified themselves as having healthy eating habits were more conscious of their children's nutrition. Correspondingly, their children had higher diet quality and healthier body mass index.

1.3. Children's Diets and Parental Self-Efficacy

Specifically, certain psychological characteristics and behaviors of parents may play an important role in supporting the development of healthy lifestyle habits in children. For instance, Campbell and colleagues [27] suggest that maternal self-efficacy is associated with protective behaviors against obesity. Furthermore, mothers with higher self-efficacy can encourage their children to consume more vegetables, while also limiting soft drink consumption and screen time at mealtime [27]. Another study highlights a positive relationship between parental self-efficacy, fruit and vegetable intake, and the protective effect on soft drinks [28]. Similarly, Parekh and colleagues [29] show that parental self-efficacy is associated with higher fruit and vegetable consumption and fewer unhealthy snacks. Along with that, regular physical activity has been shown to play a crucial role in maintaining a healthy lifestyle, both physically [30] and mentally [31,32]. Smith and colleagues [33] found that children who had parents with higher parental self-efficacy were more likely to participate in organized physical activities. On the other hand, children who had parents with

lower self-efficacy tended to spend more time on screen. This body of evidence highlights that parents with a strong sense of self-efficacy may effectively influence their children's attitudes toward unhealthy eating patterns, playing a critical role in developing healthier eating habits. In this case, parents' awareness of healthy and quality diets and their support with some services and programs can also be effective in children's development of healthy eating behaviors.

1.4. Social Media Use

In modern times, the proliferation of digital technologies and social media platforms has created radical changes in the way parents obtain information about child health issues [34,35]. Since the internet is an easily accessible tool today, accessing fast information has made the use of digital platforms widespread for parents [36]. Parents' motivation for using social media seems to be related to learning from the experiences of other parents, seeking social support, and staying informed about community-related information [37]. According to Bianco and colleagues [38], in a study of Italian participants, it was found that 84.7% of the respondents used the Internet for the health of themselves and their family members or relatives. On the other hand, a study conducted by Saher and colleagues [39] with parents of children aged 3–8 demonstrates that mothers generally use social media to obtain information about child nutrition and family meals and to share content. Another study conducted by Ifroh and Permana [40] found that parents of children aged 5–11 and 12+ most frequently sought information on child nutrition on social media. While Instagram was the most frequently used social media platform by participants for health-related information, TikTok was a platform used for non-health information.

In this context, guiding parents to ensure their children have a balanced and healthy diet is of great importance for them to develop healthy eating habits [41,42]. For instance, Azak and colleagues [43] conducted a web-based educational intervention that provided videos about child nutrition, development, and growth to parents of preschool children aged 3 to 5. After one and three months, it was found that nutritional risks were significantly reduced in children whose parents received this education. Similarly, a web-based family intervention carried out with overweight children and their families resulted in significant improvements in their dietary intake, physical activity, intrinsic motivation, self-efficacy, and healthy lifestyle behaviors. Furthermore, most families and children recommended the intervention program to others and were highly satisfied [44]. Especially nowadays, when the internet and digital tools are used intensively, creating a social network platform for parents may enable them to make the necessary adjustments in their children's nutrition by raising parents' awareness about healthy eating habits [45].

1.5. Aims

Building on this background, the general aim of this study is to validate the Italian version of the Parental Self-Efficacy for Promoting Healthy Physical Activity and Dietary Behaviors in Children Scale (PSEPAD) [46] through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). In addition, we aim to fulfill the lack in the literature concerning social media use for pediatric nutrition. Therefore, the study aims to investigate the eating habits of children and mothers, mothers' awareness and preferences, and the use of social networks to obtain information about healthy eating. Specifically, this study aims to examine the relationship between health-related eating behaviors and maternal self-efficacy regarding dietary habits. We assume that higher maternal self-efficacy corresponds to healthier dietary habits in families. In addition, it evaluates the relationship between maternal self-efficacy and the use of social networks. We expect that the greater the maternal self-efficacy, the greater the use of social networks to support healthy eating and habits.

The study also explores the relationship between maternal eating habits, self-esteem, and social media use. At the same time, the study also investigates the relationship between maternal eating habits and family eating behaviors. The results of this study will be used to develop a specific website, which responds to the needs of parents, providing rapid, valid, and useful information for managing family nutrition.

2. Materials and Methods

In total, 217 women completed the questionnaire battery. They were aged 23–54 (M = 38.86, SD = 6.31), and 58.3% n = 126) were under 40 (40 included), while 41.7% (n = 90) were over 40. The majority of the responding participants live in Northern Italy (71.6%, n = 154) and have two children (53.2%, n = 115). The first child is, in most cases, between 6 and 10 years old (44.0%, n = 92).

The study involved mothers of children between the ages of 3 and 14, who were recruited voluntarily through sharing a link for participation in the study on major social platforms (such as Facebook, Instagram, Telegram, and WhatsApp). We chose not to consider fathers in our research, as per the research rationale, and to follow the same validation procedure used in the original study for the PSEPAD scale, which focused on mothers.

The sample is divided into two parts based on the level of education. Specifically, 47.0% of the sample (n = 102) have a high school diploma, while 53.0% (n = 115) have a university degree or higher professional education. More mothers aged under 40 (50.9%, n = 58) had a university degree or a higher professional education than mothers aged over 40 (49.1%, n = 56) ($\chi^2(1, n = 216) = 5.52$, $p = 0.013$). Table 1 shows the principal parents' socio-demographic characteristics.

Table 1. Mothers' socio-demographic characteristics.

Demographic	***N***	**(%)**
Age (years), Mean (SD) = 38.86 (6.31); range = 23–54		
Educational level		
High school diploma	102	47.0
Graduate and post-graduate	115	53.0
Number of children		
1	73	33.8
2	115	53.2
3 or more	28	13.0
Children's age range		
3–5 years old	89	42.6
6–10 years old	92	44.0
11–14 years old	28	13.4
First child's age		
3–5 years old	62	29.7
6–10 years old	84	40.2
11–14 years old	63	30.1

The first page of the questionnaire presented the information form with a description of the relevant aspects of the research project, i.e., objectives, ways of protecting privacy, and ensuring respect for anonymity, followed by the informed consent form. Only in the case of acceptance of the informed consent was it possible to proceed with the completion of the subsequent parts of the questionnaire.

Each participant filled out a questionnaire consisting of 45 questions divided into five different sections. The total compilation took about 15 min. The Section 1 is on socio-demographic information and includes questions on gender, age, place of origin,

education level, and number and age of children. Section 2 focuses on family meal planning. Section 3 delves into the behaviors enacted during mealtime in the family. Section 4 investigates mothers' use of social networks, particularly when searching for pediatric nutrition-related content. Finally, Section 5 explores psychological factors that may influence eating behaviors, particularly perceived self-efficacy regarding promoting healthy eating and self-esteem. The following scales, in their Italian version, were used to analyze these variables.

The Parental Self-Efficacy for Promoting Healthy Physical Activity and Dietary Behaviors in Children Scale (PSEPAD) [46] is a questionnaire consisting of 14 items, with an 11-point Likert response scale ranging from 0 (not at all agree) to 10 (strongly agree) that allows for the identification of three subscales relevant to early childhood obesity prevention. The first subscale is about promoting healthy eating behaviors in children, the second subscale is about setting limits related to unhealthy eating behaviors in children, and the third subscale is about promoting healthy physical activity behaviors in children.

The Rosenberg Self-Esteem Scale (RSES) [47,48] is a self-report instrument that investigates self-esteem by answering 10 questions that assess the degree of agreement (4) or disagreement (1) with positive and negative statements about oneself.

Data analyses were performed using IBM SPSS Statistics (Version 29.0.1.0.) and Mplus software (Version 7). Missing values were treated via full information Maximum likelihood with robust standard errors (MLR) imputation in Mplus.

3. Results

3.1. PSEPAD Validity

3.1.1. Confirmatory Factor Analysis

The PSEPAD questionnaire was translated into Italian and administered to the mothers who participated in the research. A confirmatory factor analysis was conducted with Mplus software by testing validity on the three factors considered by Bohman and colleagues (2013) in the PSEPAD with 14 items. The RMSEA (Root Mean Square Error of Approximation) was 0.04. Optimum values at RMSEA are generally considered to be less than or equal to 0.05 for a good model fit. CFI (Comparative Fit Index) was 0.96, and TLI was 0.95 (Tucker–Lewis Index). For these two indices, optimal values are considered to be above 0.90/0.95. The chi-square test of model fit for the baseline model is significant. SRMR (Standardized root mean square residue) was 0.05, optimum values are less than 0.08. Thus, three factors were considered as in the original scale [46]: factor one (dietary behaviors in children), consisting of items 1–6 of the scale; factor two (limit-setting of unhealthy diets), consisting of items 10–14 of the scale; and factor three (physical activity), consisting of items 8–9 of the scale.

Discriminant validity of the PSEPAD was assessed by correlation between the scale and RSES (self-esteem) and six items included in the questionnaire, specifically: "How often at the supermarket do you yield to your son's/daughter's requests to purchase products?"; "Do you indulge your son/daughter's dietary requirements even if they request products commonly considered unhealthy?"; "If there is only one ingredient in the list of ingredients considered unhealthy, do you completely avoid buying that product?"; "How much do you think you are influenced by TV or newspapers when buying food?"; "How much do you think the opinion of friends and relatives influences you?"; and "How often do you encourage your son or daughter to follow a correct diet?", performed using IBM SPSS Statistics. The correlation between the three factors and RSES was, for factor 1 (dietary behaviors in children) r = 0.235, $p < 0.001$, for factor 2 (limit-setting of unhealthy diets) r = 0.212, $p < 0.01$, and for factor 3 (physical activity) r = 0.321, $p < 0.001$.

Concerning the correlation between the three factors and the individual questions asked in the questionnaire, significant relationships emerged between the question "Do you

indulge your son/daughter's dietary requirements even if they request products commonly considered unhealthy?" and factor 1 of the PSEPAD scale, r = −0.308, $p < 0.001$, factor 2, r = −0.379, $p < 0.001$, and factor 3, r = −0.270, $p < 0.001$; and between question "If there is only one ingredient in the list of ingredients considered unhealthy, do you completely avoid buying that product?" and factor 3, r = −0.156, $p < 0.05$.

Regarding the question "How much do you think you are influenced by TV or newspapers when buying food?" and the three PSEPAD factors, significant correlations emerge with factor 1, r = −0.222, $p < 0.01$, and factor 2 r = −0.217, $p < 0.01$.

Considering the question "How much do you think the opinion of friends and relatives influences you?", a significant correlation emerges with factor 2, r = −0.183, $p < 0.01$. Finally, considering the question "How often do you encourage your son or daughter to follow a correct diet?", significant correlations emerge with factor 1, r = 0.360, $p < 0.001$; factor 2, r = 0.392, $p < 0.001$; and factor 3, r = 0.252, $p < 0.001$.

3.1.2. Reliability

The reliability analysis was conducted for the three factors of the PSEPAD performed using IBM SPSS Statistics, considering McDonald's Omega [49]. The reliability analysis performed on the collected data showed that the scale has adequate internal consistency for all three factors. For Factor 1 $\omega = 0.75$, for Factor 2 $\omega = 0.80$, and for Factor 3 $\omega = 0.84$.

3.2. Food Choices and Mealtime

As the second part of the study, we wanted to analyze mothers' food choices and the conduct of their children's mealtime. Results indicate that the main people responsible for children's food choices are their parents (92.6%, $n = 201$), and just small parts of the sample indicate that children (3.2%, $n = 7$) and grandparents (0,9% $n = 2$) handle these decisions.

As concerns the company at mealtime, almost all (99.5%, $n = 216$) children have at least one meal a day with their parents. The most frequent meals eaten with parents are breakfast (77.9%, $n = 169$) and dinner (97.2%, $n = 211$), while lunch is mostly eaten at school (70.5%, $n = 153$). Also, grandparents are often main meal companions (45.2%, $n = 98$). Concerning parents' age, results show that the younger parents (78.4%, $n = 69$) have snacks with their children more than the older ones (21.6%, $n = 19$) ($\chi^2(1, N = 216) = 24.62$, $p =< 0.001$), and a lower percentage of over-40 (36.2%, $n = 55$) parents' children have meals at school than those in the under-40 (63.8%, $n = 97$) parent group ($\chi^2(1, N = 216) = 6.34$, $p = 0.012$). Additionally, only the over-40 parents' children have main meals with friends ($\chi^2(1, N = 216) = 4.26$, $p = 0.039$). First child age is an indicator of having less or more frequent lunch with their parents: specifically, children aged 11–14 (45.8%, $n = 38$) have lunch more frequently with their parents, and as age increases, they tend to have lunch more frequently with parents ($\chi^2(2, N = 209) = 16.09$, $p < 0.001$). However, in terms of snack time, the situation is reversed: children aged 6–10 years old (50.0%, $n = 43$) tend to have snacks more frequently with parents ($\chi^2(2, N = 209) = 15.79$, $p < 0.001$). Analysis also shows that children aged 6–10 (49.0%, $n = 73$), which in Italy corresponds to primary school age, have a higher frequency of having a main meal at school when compared to other age groups ($\chi^2(2, N = 209) = 30.26$, $p < 0.001$).

More than half of the mothers (54.8%, $n = 119$) do not use home delivery or ready meals for their families. Among the people who opt for this food choice, 33.7% ($n = 58$) choose this type of meal one or two times/month, and just 2.3% ($n = 4$) indicate "two or three times/week); 14.5% ($n = 25$) consume this kind of food once a week, and the remainder (15.7%, $n = 27$) two or three times/month.

Concerning the food label reading, it emerges that a great number of mothers often (26.7%, $n = 55$) or always (23.8%, $n = 49$) read this information before buying food. The

most read label component is the ingredient list (56.2%, n = 122), followed by the origin of the product (43.8%, n = 95) and the nutritional information (25.3%, n = 55). Additionally, if the ingredient list has just one unhealthy ingredient, one third of the sample (31.5%, n = 68) refuse to buy it. The main part of the mothers were revealed not to be (42.5%, n = 82) or just a little (34.7%, n = 67) influenced by TV and journals regarding food purchasing. There was a similar pattern of answers regarding friends and relatives' influence: 32.3% (n = 65) are not at all influenced by them, and 39.8% (n = 80) report just a little influence.

The investigation of the opinion regarding "following a healthy or unhealthy family eating style" reveals that most mothers (78.2%, n = 169), regardless of age, think that they have healthy eating behaviors, while some (15.3%, n = 33) indicate having difficulties defining their family eating behaviors in these terms.

During the meal, the most common activities are talking to the people sitting at the table (78.2%, n = 169) and watching television (15.3%, n = 33), and the least common include using a smartphone (3.2%, n = 7) and playing (0.5%, n = 1).

It can occur that a child refuses to have a meal. In this case, the strategies most used by mothers include convincing child to eat something (38.7%, n = 84), telling a story to the child in order to increase their interest (23.0%, n = 50), and offering the child a different meal to make them eat something (22.1%, n = 48). In a more specific situation, if the child refuses to eat a specific meal, only a few mothers (22.1%, n = 48) try to offer the same meal periodically.

In conclusion, concerning food choices and mealtime organization, we found that regarding food selectivity, almost half of the sample indicates that a child tends to be selective (48.8, n = 101) mainly when they have to eat vegetables (35.9%, n = 78) and fish (25.3, n = 55).

3.3. Parents and Social Media

After having explored food choices and mealtime organization, we focused on mothers' social media use concerning the same topic. We were interested in investigating how the different social media and platforms are used by mothers, especially in relation to their children's diet and food choices, and whether there are age differences.

The most used social media among mothers is Instagram (52.5%, n = 114), followed by Facebook (36.9%, n = 80), YouTube (18.4%, n = 40), TikTok (2.8%, n = 6), Linkedin, and Pinterest (0.9%, n = 2); the least used are Twitter and Telegram (0.5%, n = 1). Furthermore, 18.4% of the sample (n = 40) do not use social media at all. Among the parents using social media, 49.3% (n = 106) spend less than an hour on these activities, and 33.5% (n = 72) spend between one and two hours. Just 24 women (11.2%) use social media for 2–3 h.

But what are these social media used for? The preferred activities performed using social media are reading articles and blogs (58.5%, n = 127) and obtaining information published by field experts (39.2%, n = 85). The majority of mothers (73.6%, n = 148) do not use or rarely use social networks to obtain information about pediatric nutrition or to read reviews (99.5%, n = 216). There are age differences amongst mothers concerning social media use and the time spent on these platforms. In fact, among those who do not use social media in general (18.5%, n = 40) most are over 40 (62.5%, n = 25) ($\chi^2(1, N = 216) = 8.77$, $p = 0.003$). Also, the number of hours spent on social network differs between the two groups: a higher percentage of the mothers aged over 40 use social media for less than 1 h (55.2%, n = 58) and a lower percentage spend 2–3 h (12.5%, n = 3) compared to the younger group (respectively, 44.8%, n = 47, and 87.5%, n = 21) ($\chi^2(3, N = 214) = 18.36$, $p < 0.001$).

We were also interested in exploring which were the most searched topics on these social media by mothers who use them. We found that under-40 mothers use social media

to share their experience ($\chi^2(1, N = 216) = 7.54$, $p = 0.006$) (88.9%, $n = 16$), more than over-40 mothers (11.1%, $n = 2$).

The most followed profiles are those of health professionals, such as nutritionists (62.2, $n = 135$), and parents' peers (other mums and dads) sharing their personal experience (32.7%, $n = 71$). The least followed are those of cooking experts (0.5%, $n = 1$). There are some differences regarding the kind of profiles followed by the under- and over-40 mothers: profiles of mums and dads sharing their experience ($\chi^2(1, N = 216) = 9.67$, $p = 0.002$) and influencers ($\chi^2(1, N = 216) = 5.05$, $p = 0.025$) are more followed by the younger group (respectively, under-40 mothers make up 73.2%, $n = 52$ of those following profiles of mums and dads, versus 26.8%, $n = 19$ for over-40 mothers; under-40 mothers make up 83.3%, $n = 15$ of the parents that follow influencers, versus 16.7%, $n = 3$ for the over-40 mothers). Also, the health professional profiles ($\chi^2(1, N = 216) = 6.95$, $p = 0.008$) are more followed by under-40 mothers (65.2%, $n = 88$, versus 34.8%, $n = 47$ for over-40 mothers). Public authorities' profiles (e.g., Italian Society of Human Nutrition [SINU]) ($\chi^2(1, N = 216) = 7.24$, $p = 0.007$) are followed by a higher percentage of over-40 mothers (respectively, 57.7%, $n = 30$, versus 42.3%, $n = 22$ for the under-40 mothers). Chi-square analysis shows that peers' profiles where personal experience is shared have a higher percentage of followers among mothers whose first child is aged 3–5 (61.1%, $n = 11$) ($\chi^2(2, N = 209) = 9.69$, $p = 0.008$).

In addition to social media, mothers also use websites to find information and stay up-to-date on pediatric or adolescent nutrition issues, and differences concerning the age of the mothers emerge ($t(198) = 2.98$, $p = 0.003$). Under-40 parents ($M = 2.13$, $SD = 0.96$) use them more for this purpose than the over-40 group ($M = 1.72$, $SD = 0.98$). Furthermore, a significant difference in the attitude of using social networks for pediatric nutrition also emerges when considering the first child age range ($F(2, 193) = 5.40$, $p = 0.05$): mothers with a first child aged 3–5 ($M = 2.30$ $SD = 1.02$) use them more within this scope than mothers with a first child aged 6–10 ($M = 1.79$, $SD = 0.89$) and 11–14 ($M = 1.82$, $SD = 0.98$), $p < 0.05$.

More than half of the mothers (58.5%, $n = 127$) use social media with the main purpose of searching for information, and some (45.6%, $n = 99$) to find suggestions for recipes; just 1.4% ($n = 3$) of them use social media to work.

When mothers use social media to search for information, the most searched ones are related to healthy recipes and family menus (71.9%, $n = 156$), increasing their knowledge (22.1%, $n = 48$), and support strategies to organize meals (20.3%, $n = 44$). Recipe descriptions are the least searched topic (0.9%, $n = 2$). Additionally, we found that support for meal organization is research carried out more by mothers aged under 40 (79.5%, $n = 35$) than those aged over 40 (20.5%, $n = 9$) ($\chi^2(1, N = 216) = 10.23$, $p = 001$).

Regarding the level of satisfaction with pediatric nutritional content found on social media, only 4.7% ($N = 9$) are completely satisfied, and a small percentage are not very satisfied (11.4%, $n = 22$). There is also a significant difference between under-40 ($M = 2.92$, $SD = 0.98$) and over-40 ($M = 2.49$, $SD = 0.99$) groups, with the older group being less satisfied ($t(198) = 2.98$, $p = 0.003$). Another difference can be observed in the level of satisfaction when dividing the mothers by first child age: $F(2, 184) = 5.58$, $p = 0.004$. There is higher satisfaction among parents with a first child aged 3–5 ($M = 3.11$, $SD = 0.92$) than those with a first child aged 6–10 ($M = 2.57$, $SD = 0.99$) or 11–14 ($M = 2.61$, $SD = 1.02$), $p < 0.05$. While searching online information, the most important aspects taken into account by parents are "source authority" (52.7% $n = 107$), followed by "trust in the source" (36.5%, $n = 74$), while "ease of access" seems to be the least important (10.3% $n = 21$).

3.4. Self-Esteem and Self-Efficacy

Concerning self-esteem, 2 women have low self-esteem (0.9%), 14 women (6.5%) have a medium/equilibrated level of self-esteem, and most of the sample (92.6%, n = 200) have a possibly excessive self-evaluation.

Concerning PSEPAD dimensions, a *t*-test shows a significant difference between under-40 (M = 8.30, SD = 1.59) and over-40 (M = 7.77, SD = 1.98) mother groups in the level of parental self-efficacy regarding the extent of promoting physical activities among their children: younger mothers have a higher level of self-efficacy ($t(210) = 2.14$, $p = 0.033$). Another difference can be observed in relation to the first child age ($F(2, 204) = 5.54$, $p = 0.00$): mothers groups that have a first child aged 3–5 (M = 8.36, DS = 1.38) and 6–10 years old (M = 8.36, SD = 1.51), $p < 0.05$ have a higher level of self-efficacy than the group of parents with a first child aged 11–14 (M = 7.48, SD = 2.27), $p < 0.05$. Figure 1 shows the mean PSEPAD score for each factor.

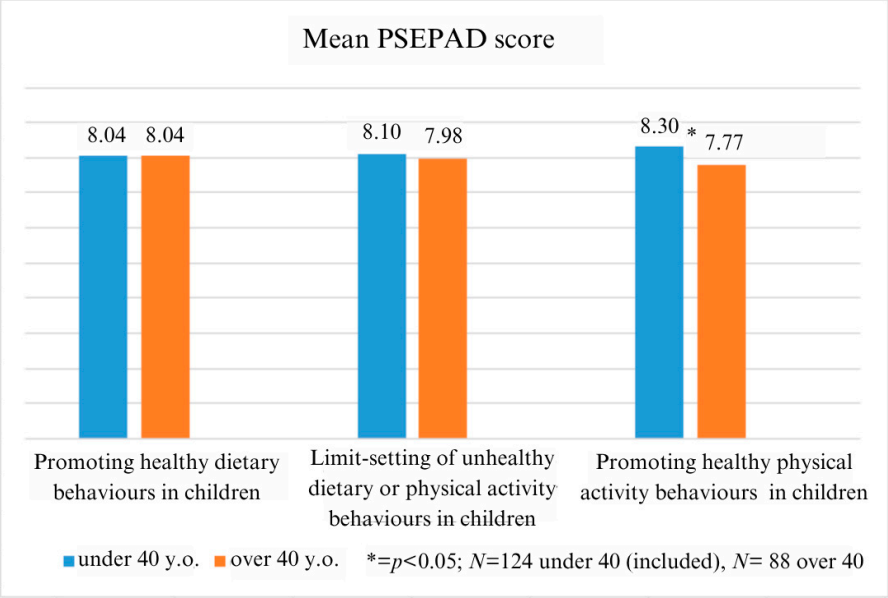

Figure 1. PSEPAD mean scores. A significant difference emerges only in the "promoting healthy physical activity behaviors in children" dimension: under-40 mothers have a higher mean score than over-40 mothers.

Analysis shows a difference regarding the mothers' confidence in promoting physical activity among their children (PSEPAD) regarding three different self-esteem levels (low, medium/equilibrated, and excessive) ($F(2, 212) = 5.64$, $p = 0.004$). Specifically, low self-esteem (1 woman) has a PSEPAD mean of 4.33, women with an equilibrated self-esteem (n = 2) have a PSEPAD mean of 6.95 (SD = 2.30), and women with possible excessive self-evaluation (n = 198) show a PSEPAD mean of 8.19 (SD = 1.70).

4. Discussion

4.1. PSEPAD Italian Version Validation

The main objective of this study was to validate the Italian version of the Parental Self-Efficacy for Promoting Healthy Physical Activity and Dietary Behaviors in Children Scale (PSEPAD) [46]. Findings from the validity and reliability analyses of the Italian version of the PSEPAD in our study revealed that the scale exhibited adequate psychometric properties in an Italian sample. The confirmatory factor analysis tested the validity of the three-factor version (children's dietary behaviors, limiting unhealthy eating, and physical activity) of PSEPAD [46], composed of 14 items. The RMSEA (Root Mean Square Error

of Approximation) indicated a good model fit. The CFI (Comparative Fit Index), TLI (Tucker–Lewis Index), and SRMR (Standardized root mean square residue) values are all indicators of an excellent fit. In terms of criterion validity, significant correlations were found between PSEPAD factors, some individual items measuring self-esteem (RSES), and parental eating habits. The results provide evidence for the discriminant validity of the scale. The reliability of the scale was tested using McDonald's Omega coefficient. Acceptable internal consistency results were obtained for all three factors (ω = 0.75 for Factor 1, ω = 0.80 for Factor 2, and ω = 0.84 for Factor 3). Based on these results, it can be said that the Italian version of the PSEPAD is both a valid and reliable tool and can be used in future research on eating habits and self-efficacy for Italian families and their children.

4.2. Investigation of Family Dietary Habits

The secondary aims of the study were to investigate family dietary habits and related mothers' awareness. Furthermore, we were interested in the use of social networks to seek information on healthy nutrition for children and families. Specifically, this study aims to examine the relationship between health-related eating behaviors and maternal self-efficacy regarding dietary habits. We assume that higher maternal self-efficacy corresponds to healthier dietary habits in families.

Our results on food choices and mealtimes provide important data examining the role of mothers in the formation of children's eating habits. Consistent with the previous literature, the results demonstrate that parents largely determine children's dietary preferences [10]. The finding that a majority of mothers in the sample (92.6%) were responsible for their children's dietary decisions supports the primary role that parents play in developing eating habits in children.

In terms of mealtimes, our results revealed that the vast majority of children (99.5%) ate at least one meal with their families. Consistent with Toland and colleagues [12], dinner and breakfast were the meals most frequently eaten with their families. The most common activity during meals was talking with others at the table (78.2%). Although only a small percentage (15.3%), watching television was one of the activities families engaged in while eating. In contrast, individual distractions such as smartphone use and gaming were much less preferred. Based on these results, it can be argued that low levels of screen time during meals allow for more time for family social activities. In addition to eating at home, the finding that children mostly ate lunch at school (70.5%) suggests that the school environment is an important factor in shaping children's eating habits [22]. This finding suggests that the quality of nutrition programs offered at school has a direct impact on the quality of children's diets.

On the other hand, our results indicate that grandparents accompanied their children at mealtimes 45.2% of the time. Therefore, the extent to which other caregivers or family members can affect the early formation of eating habits, rather than restricting it solely to parents, is also critical. Farrow [50] shows that grandparents are significantly more likely to use maladaptive eating practices. They can have an impact on the emotional regulation and on the restriction of food intake, while preferring more positive practices, such as providing a healthy eating environment [50]. Furthermore, Jongelis and colleagues [51] found that grandparents provided snacks 82% of the time to their grandchildren. These findings call for further investigation into how healthy eating habits are shaped in children who live with or share meals with their grandparents.

Analyses conducted by parental age groups indicate that young parents snack more frequently with their children. So, the frequency of children eating at school varies depending on the parents' age. The higher rate of school meals, particularly among children of parents aged under 40, may be related to the work and social life dynamics of families in

this age group. The fact that children of older parents spend more meals with their friends may reflect children's development of independence, depending on their age and social development [52,53]. Regarding child age groups, children aged 11–14 were found to eat lunch more often with their parents. On the other hand, children in younger age groups (6–10) were found to eat snacks with their parents. This may reflect children's changing daily routines and levels of parental supervision, depending on their age.

Regarding a child's refusal or selectivity toward food, the most common strategies used by mothers were insisting that the child eat something, telling a story about the food to increase the child's interest in the food, and trying to encourage the child to eat at least something by offering another food. More specifically, when the child refused a particular food, only a small percentage of mothers, 22.1%, tried to offer the same food again at regular intervals. Consequently, regarding food selectivity, nearly half of the participants (48.8%) reported that their children were picky eaters, and they particularly had difficulty eating vegetables and fish. In the literature, some studies have shown that families develop more authoritarian reward–punishment strategies and restrict mealtimes when children refuse to eat or behave selectively [13]. In other studies, mothers have resorted to skilled storytelling to make eating more enjoyable [14], in accordance with our results.

When we examined mothers' meal preparation preferences, more than half stated that they do not use ready-made meals or food delivery. Furthermore, before preparing meals, during the phase of buying food, our results indicate that nearly half of mothers frequently or always read food label information. This demonstrates that mothers are conscious of making healthy choices regarding their children's nutrition. The fact that nearly one-third of mothers would not purchase a product if a single harmful ingredient was listed demonstrates a strong healthy food awareness. Another study conducted with Italian mothers highlights similar findings, revealing that mothers who read labels are more likely to identify as healthy eaters [54]. Likewise, when asked what eating habits they adopt, our results show that most mothers believe that their families have healthy eating habits. However, there is also a part (15.3%) that struggles to understand and define their families' eating habits as healthy or unhealthy. In contrast to our results, Broilo and colleagues [5] found that mothers who perceived themselves as unhealthy but their children as having healthier eating habits actually had significantly lower unhealthy habits. The literature suggests that children whose mothers perceive themselves as having healthier eating habits tend to have healthier diets [26]. Therefore, the indirect impact of mothers' perceptions and attitudes on children's nutrition and the acquisition of healthy eating habits is of such importance that it cannot be ignored.

In addition, the results suggest that external influences play a limited role in the majority of mothers' food purchasing decisions. Approximately 43% of participants indicated that television and magazines did not influence their choices. A similar trend applies to their social environment; 32% of mothers reported no influence from friends and relatives, and 40% reported a very low level of influence. These findings suggest that mothers base their food choices on their own knowledge, experience, and values, rather than on media or immediate social influences. It is stated in the literature that mothers tend to purchase a product based on whether it is healthy or not, their children's preferences, and the special needs of their family members [24].

4.3. Mother's Social Media Use

Results of the current study confirm the key role played by social media in mothers' everyday life. Consistent with the literature [37], most of our sample uses social media to learn from the experiences of other parents, search for information, organize meals, and find recipe suggestions for the whole family. This last attitude can be seen as a

way of "searching for social support", which was an objective mentioned in the previous reference article [37]. Going into more detail, our results show that mothers use the Internet to find information to keep abreast of information in general, not just about pediatric and adolescent nutrition issues. These findings support the Italian study of Blanco and colleagues [38] regarding the significant use of the Internet amongst mothers for their health and the health of their family members or relatives. Furthermore, our study, taking into account the mothers' age, dividing them into two groups (under and over 40 years old), allowed us to find more specific information. Instagram is the most used social media (52.5%), and this result is in line with previous studies [39], which found Instagram to be the platform most used to access health-related content. TikTok and Twitter were rarely used for this purpose. Undoubtedly, social media platforms have created radical changes in the way parents obtain information about child health issues [34,35]. The main purposes indicated by mothers are reading articles and blog posts (58.5%) and accessing expert content (39.2%). However, the sample showed a low level of satisfaction regarding pediatric nutrition content found online. In fact, only 4.7% of mothers reported being completely satisfied with it, indicating a possible degree of development in ease of access, content quality, and communication format. Furthermore, under-40 mothers seem to be more engaged in this social development process, as our results show that they follow more health professional profiles than over-40 mothers. Age differences among mothers can also be seen regarding the type and intensity of social media use. Younger mothers tend to be more active on social media and to use it for a wider range of objectives, including sharing personal experiences, following peer parents and influencers, and searching for strategies to organize meals. These results correspond with recent findings [37], which highlight the use of social media among younger parents for social support and as a way to exchange knowledge. In addition, mothers aged over-40 showed a preference for following authoritative sources such as public health authorities (e.g., SINU), reflecting a more judicious and source-oriented approach [38].

According to the literature, nowadays the use of social media can be functional to find information about child nutrition [39]. Results show that mothers with younger children (3–5 years old), who are also the younger mothers, use the net more to find information about pediatric nutrition than mothers with children aged 6–10 and 11–14 years old. This result can highlight an informational need that characterizes early childhood, which is a critical period for the establishment of eating habits [41,43]. Or perhaps it can be explained by a need for information arising from recent motherhood, by a sense of insecurity, or by increased awareness of the recent possibility of using this tool. The hypothesis of a need for social support, as previously mentioned [37], is also supported by the fact that mothers, especially younger ones, follow social media profiles of mothers and fathers (peers) who share their experiences. However, source authority and trust were defined as the most important criteria to select online information. This highlights both the need of perceived information quality and the key role and responsibility of health professionals and institutions to share reliable and valuable health information [45].

4.4. Conclusions

In general, the results show a need for specific and tailored, well-structured, and evidence-based information to engage mothers in health–nutrition education through social media platforms, which are congenial tools for them. This scope has already been developed through digital interventions [43,44] but may be improved through assessment of parents' needs.

Undoubtedly, parental psychological features and attitudes have an impact on children, supporting or discouraging the development of healthy lifestyle habits. Consistent with

the literature [27–29], our results show that maternal self-efficacy can influence children's behaviors. More specifically, our findings support the hypothesis of the association between mothers' self-esteem level and self-efficacy regarding the promotion of physical activity, which is a cornerstone of a healthy lifestyle [30–32], among children. Similarly to previous results [33], which revealed that parents with higher self-efficacy had a higher attendance to physical activities, in our sample, mothers with low self-esteem find it more difficult to promote physical activity behaviors in their children. Moreover, mothers with high levels of self-efficacy are the ones who feel more comfortable in promoting this attitude. It is therefore crucial for parents to be aware of what is meant by the term "healthy behavior" to be a valid support for their children. Furthermore, evidence demonstrates that children of parents with lower self-efficacy spent more time using screen tools [33], which is in turn related to unhealthy eating habits. This indirect link between self-esteem and health-promoting ability must be considered. It highlights the need for self-esteem improvement intervention or a form of support specifically dedicated to parents to make them feel more comfortable in their role as carers.

In conclusion, family, school, and the social environment should be considered together in shaping children's eating habits. As a practical implication, supporting family eating habits and raising parental awareness are critical steps to acquiring healthy eating behaviors at an early age. Furthermore, improving the quality of school meals and empowering parents through social media will be strategic steps for the sustainability of healthy eating habits in children. According to the results, it could be useful to create specific platforms and healthy diet habits training programs to support families. Undoubtedly, social media plays a key role in searching for information, but its use for pediatric nutrition is not yet fully satisfying. Developing informative and supportive programs for parents through social media and digital platforms can be effective in improving children's nutritional quality.

4.5. Limitations and Future Perspectives

In our study, the sample was composed only of mothers, which is a limitation. Therefore, it would be interesting to extend our investigation to a mixed sample of both mothers and fathers to give fathers an active role in the development of their children's nutritional habits. The second limitation of this study concerns recruitment through social media, which may introduce selection bias. For further research, this limitation can be solved, for example, by recruiting parents in collaboration with kindergarten, primary, and secondary schools.

According to the results, the website and social networking platforms planned for the next phase of the study will make significant contributions to increasing parents' awareness of healthy eating and promoting positive eating habits.

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References

1. Meiselman, H.L.; Bell, R. Eating habits. In *Encyclopedia of Food Sciences and Nutrition*, 2nd ed.; Caballero, B., Ed.; Academic Press: Cambridge, UK, 2003; pp. 1963–1968. [CrossRef]
2. Mikkilä, V.; Räsänen, L.; Raitakari, O.T.; Pietinen, P.; Viikari, J. Consistent dietary patterns identified from childhood to adulthood: The cardiovascular risk in Young Finns Study. *Br. J. Nutr.* **2005**, *93*, 923–931. [CrossRef]
3. World Health Organization. *Healthy Diet*; World Health Organization: Geneva, Switzerland, 2020. Available online: https://www.who.int/news-room/fact-sheets/detail/healthy-diet (accessed on 15 May 2025).
4. Arvidsson, L.; Eiben, G.; Hunsberger, M.; De Bourdeaudhuij, I.; Molnar, D.; Jilani, H.; Thumann, B.; Veidebaum, T.; Russo, P.; Tornatitis, M.; et al. Bidirectional associations between psychosocial well-being and adherence to healthy dietary guidelines in European children: Prospective findings from the IDEFICS study. *BMC Public Health* **2017**, *17*, 926. [CrossRef]
5. Cohen, J.F.; Gorski, M.T.; Gruber, S.A.; Kurdziel, L.B.; Rimm, E.B. The effect of healthy dietary consumption on executive cognitive functioning in children and adolescents: A systematic review. *Br. J. Nutr.* **2016**, *116*, 989–1000. [CrossRef]
6. Dalwood, P.; Marshall, S.; Burrows, T.L.; McIntosh, A.; Collins, C.E. Diet quality indices and their associations with health-related outcomes in children and adolescents: An updated systematic review. *Nutr. J.* **2020**, *19*, 118. [CrossRef]
7. Malik, V.S.; Popkin, B.M.; Bray, G.A.; Després, J.P.; Willett, W.C.; Hu, F.B. Sugar-sweetened beverages and risk of metabolic syndrome and type 2 diabetes: A meta-analysis. *Diabetes Care* **2010**, *33*, 2477–2483. [CrossRef]
8. Pinto da Costa, M.; Severo, M.; Araújo, J.; Vilela, S. Longitudinal tracking of diet quality from childhood to adolescence: The interplay of individual and sociodemographic factors. *Appetite* **2024**, *196*, 107279. [CrossRef]
9. O'Neil, A.; Quirk, S.E.; Housden, S.; Brennan, S.L.; Williams, L.J.; Pasco, J.A.; Berk, M.; Jacka, F.N. Relationship between diet and mental health in children and adolescents: A systematic review. *Am. J. Public Health* **2014**, *104*, e31–e42. [CrossRef]
10. Scaglioni, S.; Salvioni, M.; Galimberti, C. Influence of parental attitudes in the development of children eating behaviour. *Br. J. Nutr.* **2008**, *99*, S22–S25. [CrossRef]
11. Litterbach, E.; Campbell, K.J.; Spence, A.C. Family meals with young children: An online study of family mealtime characteristics, among Australian families with children aged six months to six years. *BMC Public Health* **2017**, *17*, 1. [CrossRef]
12. Totland, T.H.; Knudsen, M.D.; Paulsen, M.M.; Bjelland, M.; Van't Veer, P.; Brug, J.; Klepp, K.I.; Andersen, L.F. Correlates of irregular family meal patterns among 11-year-old children from the Pro Children study. *Food Nutr. Res.* **2017**, *61*, 1339554. [CrossRef]
13. Chilman, L.; Meredith, P.; Kennedy-Behr, A.; Campbell, G.; Frakking, T.; Swanepoel, L.; Verdonck, M. Picky eating in children: Current clinical trends, practices, and observations within the Australian health-care context. *Aust. Occup. Ther. J.* **2023**, *70*, 471–486. [CrossRef]
14. Burnett, A.J.; Russell, C.G.; Lacy, K.E.; Worsley, A.; Spence, A.C. Mothers' descriptions of their feeding strategies in response to fussy eating with children of different levels of trait fussiness. *Appetite* **2023**, *186*, 106581. [CrossRef]
15. Hammons, A.J.; Fiese, B.H. Is frequency of shared family meals related to the nutritional health of children and adolescents? *Pediatrics* **2011**, *127*, e1565–e1574. [CrossRef]
16. Knobl, V.; Dallacker, M.; Hertwig, R.; Mata, J. Happy and healthy: How family mealtime routines relate to child nutritional health. *Appetite* **2022**, *171*, 105939. [CrossRef]
17. Mou, Y.; Jansen, P.W.; Raat, H.; Nguyen, A.N.; Voortman, T. Associations of family feeding and mealtime practices with children's overall diet quality: Results from a prospective population-based cohort. *Appetite* **2021**, *160*, 105083. [CrossRef]
18. Wyse, R.; Campbell, E.; Nathan, N.; Wolfenden, L. Associations between characteristics of the home food environment and fruit and vegetable intake in preschool children: A cross-sectional study. *BMC Public Health* **2011**, *11*, 938. [CrossRef]
19. Wolnicka, K.; Taraszewska, A.M.; Jaczewska-Schuetz, J.; Jarosz, M. Factors within the family environment such as parents' dietary habits and fruit and vegetable availability have the greatest influence on fruit and vegetable consumption by Polish children. *Public Health Nutr.* **2015**, *18*, 2705–2711. [CrossRef]
20. Santiago-Torres, M.; Adams, A.K.; Carrel, A.L.; LaRowe, T.L.; Schoeller, D.A. Home food availability, parental dietary intake, and familial eating habits influence the diet quality of urban Hispanic children. *Child. Obes.* **2014**, *10*, 408–415. [CrossRef]
21. Fulkerson, J.A.; Story, M.; Neumark-Sztainer, D.; Rydell, S. Family meals: Perceptions of benefits and challenges among parents of 8- to 10-year-old children. *J. Am. Diet. Assoc.* **2008**, *108*, 706–709. [CrossRef]
22. Moreira, T.; Severo, M.; Oliveira, A.; Ramos, E.; Rodrigues, S.; Lopes, C. Eating out of home and dietary adequacy in preschool children. *Br. J. Nutr.* **2015**, *114*, 297–305. [CrossRef]

23. Acito, M.; Cangelosi, G.; Petrelli, F.; Moretti, M.; Villarini, M.; Celestino, A.; Sordoni, E.; Grappasonni, I. Eating and lifestyle habits and primary school health-related programs: A survey involving Italian children and teachers. *Ann. Ig. Med. Prev. Comunità* **2024**, *36*, 123–143. [CrossRef]
24. Alsini, N.; Kutbi, H.A.; Hakim, N.; Mosli, R.; Eid, N.; Mulla, Z. Factors influencing grocery shopping choices and the prevalence of food label use among Saudi mothers: A cross-sectional pilot study. *Nutr. Food Sci.* **2022**, *53*, 432–444. [CrossRef]
25. Broilo, M.C.; Vitolo, M.R.; Stenzel, L.M.; Levandowski, D. Mothers' perceptions of their own diets and the diets of their children at 2–3 years of age. *Psicol. Reflexão Crítica* **2017**, *30*, 23. [CrossRef]
26. Mäkelä, I.; Koivuniemi, E.; Vahlberg, T.; Raats, M.M.; Laitinen, K. Self-Reported Parental Healthy Dietary Behavior Relates to Views on Child Feeding and Health and Diet Quality. *Nutrients* **2023**, *15*, 1024. [CrossRef]
27. Campbell, K.; Hesketh, K.; Silverii, A.; Abbott, G. Maternal self-efficacy regarding children's eating and sedentary behaviours in the early years: Associations with children's food intake and sedentary behaviours. *Int. J. Pediatr. Obes.* **2010**, *5*, 501–508. [CrossRef]
28. Möhler, R.; Wartha, O.; Steinacker, J.M.; Szagun, B.; Kobel, S. Parental Self-Efficacy as a Predictor of Children's Nutrition and the Potential Mediator Effect between the Health Promotion Program "Join the Healthy Boat" and Children's Nutrition. *Int. J. Environ. Res. Public Health* **2020**, *17*, 9463. [CrossRef]
29. Parekh, N.; Henriksson, P.; Delisle Nyström, C.; Silfvernagel, K.; Ruiz, J.R.; Ortega, F.B.; Pomeroy, J.; Löf, M. Associations of Parental Self-Efficacy with Diet, Physical Activity, Body Composition, and Cardiorespiratory Fitness in Swedish Preschoolers: Results from the MINISTOP Trial. *Health Educ. Behav.* **2018**, *45*, 238–246. [CrossRef]
30. Janssen, I.; LeBlanc, A.G. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int. J. Behav. Nutr. Phys. Act.* **2010**, *7*, 40. [CrossRef]
31. Fu, Q.; Li, L.; Li, Q.; Wang, J. The effects of physical activity on the mental health of typically developing children and adolescents: A systematic review and meta-analysis. *BMC Public Health* **2025**, *25*, 22690. [CrossRef]
32. Hale, D.; Viner, R.M.; Sanci, L. Physical activity interventions for the mental health and well-being of young people: A systematic review and best-evidence synthesis. *Int. J. Behav. Nutr. Phys. Act.* **2023**, *62*, 123–143. [CrossRef]
33. Smith, B.J.; Grunseit, A.; Hardy, L.L.; King, L.; Wolfenden, L.; Milat, A. Parental influences on child physical activity and screen viewing time: A population-based study. *BMC Public Health* **2010**, *10*, 593. [CrossRef]
34. Jaks, R.; Baumann, I.; Juvalta, S.; Dratva, J. Parental digital health information seeking behavior in Switzerland: A cross-sectional study. *BMC Public Health* **2019**, *19*, 225. [CrossRef]
35. Moon, R.Y.; Mathews, A.; Oden, R.; Carlin, R. Mothers' Perceptions of the Internet and Social Media as Sources of Parenting and Health Information: Qualitative Study. *J. Med. Internet Res.* **2019**, *21*, e14289. [CrossRef]
36. Walsh, A.M.; Hamilton, K.; White, K.M.; Hyde, M.K. Use of online health information to manage children's health care: A prospective study investigating parental decisions. *BMC Health Serv. Res.* **2015**, *15*, 131. [CrossRef] [PubMed]
37. Frey, E.; Bonfiglioli, C.; Brunner, M.; Frawley, J. Parents' Use of Social Media as a Health Information Source for Their Children: A Scoping Review. *Acad. Pediatr.* **2022**, *22*, 526–539. [CrossRef]
38. Bianco, A.; Zucco, R.; Nobile, C.G.; Pileggi, C.; Pavia, M. Parents seeking health-related information on the Internet: Cross-sectional study. *J. Med. Internet Res.* **2013**, *15*, e204. [CrossRef]
39. Saher, A.; Tang, L.; Douglas, S.; Jacob, R.; Walton, K.; Sadowski, A.; Ma, D.W.L.; Haines, J. Fathers' use of social media for social comparison is associated with their food parenting practices. *Appetite* **2024**, *194*, 107201. [CrossRef]
40. Ifroh, R.H.; Permana, L. Do parents use the internet and social media to child health-seeking information? *J. Kesehat. Komunitas* **2022**, *8*, 171–180. [CrossRef]
41. Drapeau, V.; Harvey, A.A.; Jacob, R.; Provencher, V.; Panahi, S. The impact of a family web-based nutrition intervention to increase fruit, vegetable, and dairy intakes: A single-blinded randomized family clustered intervention. *Nutr. J.* **2022**, *21*, 75. [CrossRef]
42. Yee, A.Z.H.; Lwin, M.O.; Ho, S.S. The influence of parental practices on child promotive and preventive food consumption behaviors: A systematic review and meta-analysis. *Int. J. Behav. Nutr. Phys. Act.* **2017**, *14*, 47. [CrossRef]
43. Azak, M.; Gözen, D. The impact of web-based education provided to parents on the nutritional risk of preschoolers: A quasi-experimental study. *Matern. Child Nutr.* **2025**, *21*, e13735. [CrossRef] [PubMed]
44. Delamater, A.M.; Pulgaron, E.R.; Rarback, S.; Hernandez, J.; Carrillo, A.; Christiansen, S.; Severson, H.H. Web-based family intervention for overweight children: A pilot study. *Child. Obes.* **2013**, *9*, 57–63. [CrossRef]
45. Zarnowiecki, D.; Mauch, C.E.; Middleton, G.; Matwiejczyk, L.; Watson, W.L.; Dibbs, J.; Dessaix, A.; Golley, R.K. A systematic evaluation of digital nutrition promotion websites and apps for supporting parents to influence children's nutrition. *Int. J. Behav. Nutr. Phys. Act.* **2020**, *17*, 17. [CrossRef]
46. Bohman, B.; Ghaderi, A.; Rasmussen, F. Psychometric properties of a new measure of parental self-efficacy for promoting healthy physical activity and dietary behaviors in children. *Eur. J. Psychol. Assess.* **2013**, *29*, 291–298. [CrossRef]
47. Prezza, M.; Trombaccia, F.R.; Armento, L. La scala dell'autostima di Rosenberg: Traduzione e validazione Italiana [The Rosenberg Self-Esteem Scale: Italian translation and validation]. *Boll. Psicol. Appl.* **1997**, *223*, 35–44.

48. Rosenberg, M. *Rosenberg Self-Esteem Scale (RSES)*; Database record; APA PsycTests: Washington, DC, USA, 1965.
49. McDonald, R.P. *Test Theory: A Unified Treatment*; Lawrence Erlbaum Associates Publishers: Mahwah, NJ, USA, 1999.
50. Farrow, C. A comparison between the feeding practices of parents and grandparents. *Eat. Behav.* **2014**, *15*, 339–342. [CrossRef]
51. Jongenelis, M.I.; Talati, Z.; Morley, B.; Pratt, I.S. The role of grandparents as providers of food to their grandchildren. *Appetite* **2019**, *134*, 78–85. [CrossRef] [PubMed]
52. Bassett, R.; Chapman, G.E.; Beagan, B.L. Autonomy and control: The co-construction of adolescent food choice. *Appetite* **2008**, *50*, 325–332. [CrossRef] [PubMed]
53. Contento, I.R.; Williams, S.S.; Michela, J.L.; Franklin, A.B. Understanding the food choice process of adolescents in the context of family and friends. *J. Adolesc. Health* **2006**, *38*, 575–582. [CrossRef]
54. Capasso, M.; Califano, G.; Caracciolo, F.; Caso, D. Only the best for my kids: An extended TPB model to understand mothers' use of food labels. *Appetite* **2023**, *191*, 107040. [CrossRef]