



Mothers' considerations in snack choice for their children: Differences between the North and the South of Italy

Femke W.M. Damen^{a,*}, Pieternel A. Luning^a, Nicoletta Pellegrini^{a,b}, Paola Vitaglione^c, Gert Jan Hofstede^{d,e}, Vincenzo Fogliano^a, Bea L.P.A. Steenbekkers^a

^a Food Quality and Design Group, Department of Agrotechnology and Food Sciences, Wageningen University & Research, The Netherlands

^b Department of Agricultural, Food, Environmental and Animal Sciences, University of Udine, Italy

^c Department of Agricultural Sciences, University of Naples Federico II, Naples, Italy

^d Information Technology Group, Department of Social Sciences, Wageningen University & Research, The Netherlands

^e UARM, North-West University, South Africa

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ABSTRACT

This study describes differences in considerations and value conflicts between mothers living in the North and the South of Italy during snack provision to their 2–7 years old children. Semi-structured interviews with 20 mothers living in the North and 20 mothers living in the South of Italy were conducted. Participants matched on educational level and weight status. Mothers' considerations in snack provision were grouped into four key themes: health-related, child-related, time-related, and product-related. North Italian mothers showed more health-related considerations while providing a snack compared to mothers living in the South. In case mothers from the South mentioned healthiness as a consideration, it was often related to giving energy. The child-related key theme revealed that a snack needs to be liked by the child, otherwise Italian mothers do not provide it. For the time-related key theme, differences were small between North and South Italian mothers. The product-related key theme showed the brand to be more important for South Italian mothers. Mothers from the North of Italy experienced more value conflicts, all related to health. The current studied showed that even within the same country, geographical differences in mothers' considerations and value conflicts for providing snacks exist. This implies that snack choice, considerations and values seem to be influenced by tradition and family culture.

1. Introduction

Over the last decades, childhood obesity has been increasing in the United States and in Europe (Ogden, Carroll, Kit, & Flegal, 2014; Wijnhoven et al., 2014). When obese or overweight children become adults, there is a higher chance that their weight problems remain (Singh, Mulder, Twisk, Van Mechelen, & Chinapaw, 2008) which could lead to health problems, also later in life as considered by Reilly and Kelly (2011), Tyson and Frank (2018) and Flodmark (2018).

In Italy, overweight and obesity among children are highly prevalent too (Lauria, Spinelli, Buoncristiano, & Nardone, 2019; Spinelli et al., 2019; Wijnhoven et al., 2013) and show striking differences between the North and the South of the country (Nardone et al., 2018). Several studies reported the prevalence of overweight and obesity to be higher in the South compared to the North of Italy (Brunello & Labartino, 2014; Gallus et al., 2013; Mancini, Marchini, & Simeone, 2016). The difference is particularly present among primary school

children (Binkin et al., 2010; Lazzeri et al., 2014; Menghetti et al., 2015), as illustrated in Fig. 1.

The contribution of frequent intake of energy-dense snacks by children (Dunford & Popkin, 2018; Larson & Story, 2013) on the development of childhood overweight has been often quoted (Boots, Tiggemann, Corsini, & Mattiske, 2015; Fisher et al., 2015; Pearson, Ball, & Crawford, 2011; Piernas & Popkin, 2010). Pearson et al. (2011) showed the relationship between snack intake, tv-viewing and obesity in a longitudinal study. As children's dietary behavior tracks into adulthood (Craigie, Lake, Kelly, Adamson, & Mathers, 2011; Mikkilä, Räsänen, Raitakari, Pietinen, & Viikari, 2005), it is important to know how snacks provided to children are chosen. The role of mothers is very important in the development of children's dietary behaviour (Hardcastle & Blake, 2016; Holsten, Deatrick, Kumanyika, Pinto-Martin, & Compher, 2012; Jones, 2018). Even though the role of fathers is becoming more prominent in food choice over the last years (Fielding-Singh, 2017; Khandpur, Blaine, Fisher, & Davison, 2014),

* Corresponding author.

E-mail address: femke.brouwer-damen@wur.nl (F.W.M. Damen).

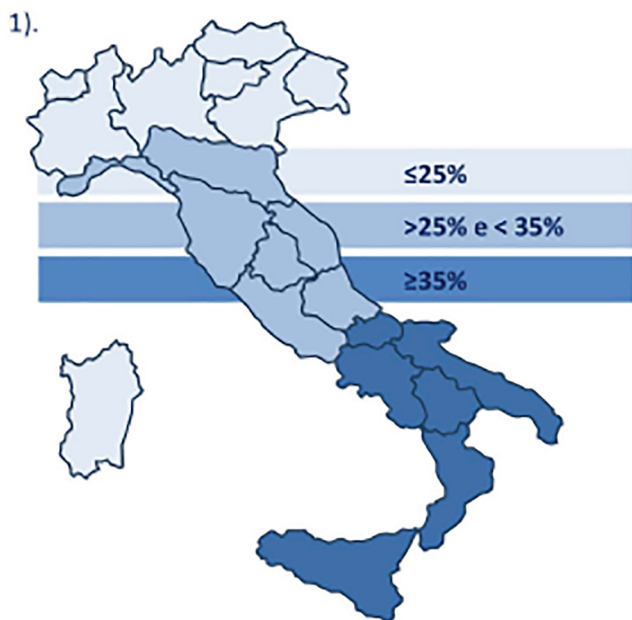


Fig. 1. Prevalence of overweight and obesity in 8–9-year-old children in the different regions of Italy (Nardone et al., 2018).

mothers are often the main providers of snacks to their children (Rosenkranz & Dzewaltowski, 2008; Walsh, Meagher-Stewart, & Macdonald, 2015). Also in Italy, the mother is the main parent involved in food choice for the children as stated by Finistrella et al. (2012) and Squeri et al. (2018).

Considerations people take into account when making food choices are so-called values (Connors, Bisogni, Sobal, & Devine, 2001). When these considerations are not aligned, value conflicts occur (Connors et al., 2001; Furst, Connors, Bisogni, Sobal, & Falk, 1996). Mothers also experience these value conflicts while making snack choices for their children (Damen, Hofstede, et al., 2019; Damen, Luning, Hofstede, Fogliano, & Steenbekkers, 2020). Mothers prefer to make healthy food choices for their children (Carnell, Cooke, Cheng, Robbins, & Wardle, 2011; Damen, Luning, Fogliano, & Steenbekkers, 2019; Johnson, Sharkey, Dean, Alex McIntosh, & Kubena, 2011; Machín, Giménez, Curutchet, Martínez, & Ares, 2016; Walsh et al., 2015) as well as choices preferred by their children (Boak et al., 2016; Damen, Luning, et al., 2019; Meers, Domoff, LeRoy, Holt, & Musher-Eizenman, 2016; Russell, Worsley, & Liem, 2015; Wijtzes et al., 2017). These two considerations do not always lead to the same choice (Damen, Luning, et al., 2020; Luomala, Laaksonen, & Leipamaa, 2004). Also, Italian mothers experience this value conflict between health and preference of their child. Moreover, the value conflict between health and social environment is another value conflict Italian mothers experience while providing snacks to their children aged 2–7 years (Damen, Hofstede, et al., 2019).

Previous research has also demonstrate that Italian mothers value the preference of their child above the healthiness of the snack (Damen, Hofstede, et al., 2019). Besides, the brand is an important consideration taken into account while choosing a snack. However, while analyzing that dataset, there was an indication that mothers from the North of Italy showed different considerations in snack providing to be important compared to mothers from the South. Moreover, these differences also seemed to be present for experienced value conflicts. As this possible regional effect was not studied explicitly in the previous paper, we explored the differences in snack choice considerations and value conflicts for North versus South Italian mothers in a new study. In the current study, we attempted to keep the level of educational attainment, working status and weight status equal between the participants of the two regions, to make sure these differences would not affect our

outcomes.

2. Methods

2.1. Study design

Twenty mothers living in the North of Italy (Parma) and twenty mothers living in the South of Italy (Naples) participated in the study. All mothers were selected based on having at least one child between two and seven years old. Moreover, in the selection of the mothers we attempted to keep the educational attainment, working status and weight status of the mothers from the North and the South of Italy comparable, to avoid influence of these factors on the results. However, we did not explicitly monitor these criteria during recruitment. Social media and snowball sampling (Barros da Silva, Barbieri-Figueiredo, & Van Riper, 2018; Zarantonello & Luomala, 2011) were used to recruit participants. Mothers were recruited in Parma (North) and Naples (South) province, particularly at daycare centres. Interviews took place between December 2017 and March 2018.

Semi-structured interviews were held to examine mothers' considerations and experienced value conflicts while providing a snack to their children. Snacks were defined as all foods, either healthy or unhealthy, eaten in between the regular meals, based on definitions used in previous studies (Damen, Hofstede, et al., 2019; Duffey, Rivera, & Popkin, 2014; Hartmann, Siegrist, & Van Der Horst, 2013; Ovaskainen, Tapanainen, & Pakkala, 2010). Value conflicts were explained to the mothers as difficult moments while providing a snack to their children. The research was piloted with two mothers of the target group, who were not involved in the study. Minor changes to the interview guide were made based on the results of the pilot study. Interviews, which lasted about 45 min, were conducted by native speakers and were digitally recorded. Interviews were conducted by two different interviewers, i.e. one interviewer in the North and the other interviewer in the South. For this purpose, an interview guide was developed comparable with previous research (Damen, Hofstede, et al., 2019) in order to maintain consistency in interviewing (Bryman, 2016). The interview guide is presented in Table 1. A grounded theory approach was used for systematic data collection (Charmaz, 2014) and the data were analysed inductively. The study had an explorative character because the current insights from literature were too limited to accurately design a quantitative research. All mothers provided information about their number of children, age of their children as well as their own age. Moreover, they reported their height and weight and that of their children.

Table 1
Interview guide.

Interview guide
<i>General snack providing</i>
Could you explain a typical day of eating for your child? Could you tell something about the providing of snacks to your children?
- Do you have a certain pattern (week/weekend, the moment of the day, other...)
- Are there specific situations for providing a snack?
What type of snacks do you provide?
- How much do you provide? (portion size)
- Do you have habits in snack providing?
- Where do you give the snacks? (place at home)
Are there any traditional snacks in your region?
<i>Reasons for providing a snack</i>
What are your reasons for providing a snack for your child? What is the most ideal snack that can be given to children of this age?
- What characteristics make it a perfect combination for a snack?
<i>Value conflicts</i>
What are difficult moments in providing snacks to your children for you?
- Why are these moments difficult for you?
- How do you deal with such moments?
- How do you feel about it?
- Can you give examples?

All mothers provided informed consent before participating in the study and each mother received a gift voucher as compensation. To ensure anonymity, each participant was given a unique code, including a number and a code for the region they came from (NIT for North and SIT for South).

2.2. Data analysis

Interviews were transcribed, translated into English by two of the co-authors, and qualitatively analyzed using the software program MAXQDA (version 18). Two researchers, including the first author, independently developed code labels for all considerations and value conflicts mentioned by the mothers. Subsequently, they coded the translated interviews and compared and discussed their assigned codes until consensus on the used codes was attained. Data saturation was reached after analyzing 12 interviews with mothers living in the North and 14 interviews with mothers living in the South. No new codes had to be added to the interviews and no new results appeared in the last 8 and 6 interviews with mothers from respectively the North and the South. The coded considerations and value conflicts mentioned were comparable with those found in our previous research (Damen, Hofstede, et al., 2019). Therefore, we grouped the considerations according to the key themes defined in that study. The key themes include health-related, child-related, time-related, and product-related considerations. All considerations that relate to the healthiness of the product or to healthy behavior of the mother were categorized in the key theme health-related. All considerations that connect to the child were categorized in the child-related key theme. The time-related key theme includes both considerations of convenience and making own food. All considerations that were associated with the product itself were included in the product-related key theme (Damen, Hofstede, et al., 2019). If a mother mentioned a consideration several times during the interview, it counted only once because the intention was to identify variation in types of considerations rather than assessing the frequency as a way to quantify considerations per mother. However, we used the number of mothers reporting a similar consideration as a measure to select the most relevant considerations. Only those considerations that were mentioned by at least 5 mothers in one of the two groups were included in the key themes. The consideration healthiness, belonging to the health-related key-theme, revealed different more nuanced considerations (such as not too much sugar, no additives, needs to give energy, not too much fat, having good ingredients, not too much salt), that have been grouped into sub-constructs. These sub-constructs were also analyzed and presented per region. For the other considerations, no sub-constructs were observed as they were well delineated. Value conflicts were analyzed throughout the entire data-set, including, but not limited to, the specific question on difficult moments (Table 2).

3. Results

3.1. Participant characteristics

Table 2 shows an overview of the demographic information of the mothers from both regions. The average age of participating mothers living in the North of Italy was 39.2 years, ranging from 28–48 years, the average age of mothers living in the South of Italy was 37.5 years, with a range from 30–45 years. Most of the participants were highly educated with a bachelor's degree or higher. As we recruited particularly at daycare centres, in each region all but one mothers were employed. Moreover, also the self-reported weight status of the mothers as well as of the children were comparable between both regions. The average number of children was 1.7 in the North and 1.5 in the South.

Table 2
Participants' characteristics per region.

	North Italy (n = 20)	South Italy (n = 20)
Average age mothers, years (range)	39.2 (28–48)	37.5 (30–45)
Education		
Lower than BSc, number	3	4
BSc or higher, number	17	16
Mothers' weight status		
BMI < 18.5 kg/m ² , underweight	1	1
BMI 18.5–24.9 kg/m ² , normal weight	16	15
BMI 25–30 kg/m ² , overweight	1	1
BMI > 30 kg/m ² , obese	2	3
Number of mothers employed	19	19
The average number of children	1.7	1.5
1 child	8	11
2 children	11	9
3 children	1	0
Average age children, years (range)	4.4 (2–7)	5.1 (3–7)
Children's weight status*		
Percentile < 5th, underweight	1	0
Percentile 5th–85th, normal weight	15	13
Percentile 85th–95th, overweight	2	4
Percentile > 95th, obese	2	3

* Percentiles of weight status for the children were calculated using the growth charts provided by the World Health Organization (www.who.int) for boys and girls between 2 and 5 years old.

Table 3

Considerations for snack selection of mothers for their young children: number of mothers who mentioned a consideration at least once and percentage of the total number of occurrences for all considerations per region.

Key themes	Considerations	North Italy n = 20	South Italy n = 20
Health-related	Healthiness	19 (15%)	7 (9%)
	Natural/fresh/organic	12 (10%)	4 (5%)
	Variety	14 (11%)	1 (1%)
	Portion size (need to be small)	10 (8%)	3 (4%)
Child-related	Balance/moderation	5 (4%)	1 (1%)
	Child's preference	20 (16%)	20 (25%)
	Freedom for child/not forcing to eat	6 (5%)	8 (10%)
Time-related	Health status of the child	4 (3%)	5 (6%)
	Convenience	14 (11%)	10 (13%)
Product-related	Making own food	9 (7%)	6 (8%)
	Brand	6 (5%)	11 (14%)
	Price	7 (6%)	4 (5%)
	Total number of occurrences	126 (100%)	80 (100%)

Considerations mentioned by more than half of the mothers in a region are bold.

3.2. Considerations in snack providing

Table 3 presents the considerations of the North and South Italian mothers when providing a snack to their children aged 2–7 years, categorized in the key themes health-related, child-related, time-related and product-related. Mothers in the North mentioned in total 126 considerations, whereas mothers in the South gave 80 considerations.

3.2.1. Health-related considerations

All but one mother from the North of Italy mentioned health as a consideration while providing a snack to their children (Table 3).

"First of all, a snack needs to be healthy, that's obvious" [NIT38].

Mothers from the South of Italy mentioned less often health as a consideration, they valued the preference of their child above healthiness and mentioned that a healthy eating pattern could be developed later in life.

Table 4
Number of mothers who mentioned each sub-construct at least once and the percentage of the total number of sub-constructs for all considerations per region.

Sub-constructs of consideration	North Italy (n = 19)	South Italy (n = 7)
healthiness		
Not too much sugar	13 (31%)	5 (24%)
No additives	9 (21%)	1 (5%)
Needs to give energy	7 (17%)	7 (33%)
Not too much fat	6 (14%)	1 (5%)
Having good ingredients	5 (12%)	7 (33%)
Not too much salt	2 (5%)	0 (0%)
Total number of occurrences	42	21

“There are mothers who are very careful about choosing a healthy snack, but I think this is not right. As they are children, I think they could eat what they want, there will be time later to be careful about what to eat” [SIT16].

“I do not think healthiness is important for a snack, I give my son a snack because he asks for it. Obviously, if he asks for fruit or orange juice I am happier but I think he is young and he has so much time to change his preferences” [SIT10].

Table 4 indicates that mothers from the North of Italy were more specific in defining their health considerations. Overall, more mothers from the North than from the South of Italy, mentioned the sub-constructs of healthiness like ‘no additives’, ‘not too much fat’ and ‘not too much sugar’. On the other hand, when mothers from the South mentioned healthiness as a consideration, relatively more mothers mentioned the less specific sub-construct ‘having good ingredients’. In addition, the sub-construct ‘needs to give energy’ was also mentioned more often by mothers from the South.

“Children spend a lot of energy and I think that they need the same energy from food, therefore I give snacks” [SIT04].

For the health-related considerations, we see that more North Italian mothers mentioned natural/fresh/organic than South Italian mothers. In addition, North Italian mothers often mentioned variety as a consideration (Table 3).

“Obviously, it is necessary to vary the snacks you provide; only a variety of foods gives you good health. A snack adds to the variety of what my child eats” [NIT37].

Portion size, another consideration belonging the health-related key theme, was also mostly mentioned by the North Italian mothers.

“In my opinion, the portions you give need to be small” [NIT48].

3.2.2. Child-related considerations

The preference of the child is very important for both North and South Italian mothers, they all mentioned this consideration as relevant in snack providing. This preference of the child can be for a certain product or even for a certain brand. For South Italian mothers, this is the consideration they mentioned most largely above the health consideration (Table 3).

“If my son does not like the snack he does not eat it. It is impossible to give fruit to him because he hates fruits. So, unfortunately, I have to give him something that is not healthy” [SIT01].

“I would like to give a healthy snacks, at the same time I realize that if the snack itself is not desirable, he will not eat it at the end” [NIT35].

The Italian mothers did not often mention the health status of the child. In addition, freedom for the child by not forcing it to eat specific snacks is mentioned by mothers of both regions.

“I do not oblige my children to eat something because I think it is good; if they do not want it, they do not want it” [NIT39].

“I think that children should be free to choose what to eat. It is good to explain to them what is a good choice, but it is good too that they eat what they like” [SIT11].

3.2.3. Time-related considerations

Convenience is the most mentioned consideration in the time-related key theme. Both North and South Italian mothers mentioned this consideration to be important in snack providing to their 2–7-year-old children.

“For me, it is important that a snack is pre-packed because I have no time to prepare something myself” [SIT10].

“Because all mothers have little time, we tend to take something quick and fast. For example, many times packaged crisps” [NIT42].

The opposite of convenience is making own food. Especially when more time is available, like at the weekends, this is a consideration taken into account while providing snacks.

“During the weekend we have more time available, and then I often make a homemade cake. So, then they eat for a snack a cake made by me, so no pre-packaged product” [NIT36].

3.2.4. Product-related considerations

More than half of the South Italian mothers mentioned brand as an important consideration; it is their second most mentioned consideration, after the preference of their child (Table 3). North Italian mothers also mention this consideration, but less often.

“For me, the brand is important because it is equivalent to quality. Price is not that important to me” [SIT04].

3.3. Value conflicts

All mothers from the North of Italy reported experiencing value conflicts, while mothers from the South of Italy reported value conflicts less often. When mothers experienced value conflicts, they were always health-related, see Table 5.

The value conflict mentioned most often is the conflict between the healthiness of the snack and the preference of the child. Italian mothers highly valued the preference of their child, but they would also like to provide healthy snacks. When these values were not in line, value conflicts could appear. Mothers from the North of Italy more often experienced these value conflicts compared to mothers in the South.

“It would be better to give some focaccia, or some crackers or biscuits, but my children like chocolate better so it is a lost battle. What would be perfect for me and is healthier is not appreciated” [NIT36].

“It becomes difficult when you want to give a healthy snack and the child does not want it” [NIT44].

Another value conflict mentioned often is between health and social environment. When other people are around, like other children, grandparents or spouses, these conflicts arise.

“The grandparents definitely influence the snacks the children eat. They gave them pre-packaged ice-cream right after lunch. For me, this is not a good practice” [NIT48].

“When we are with others that are eating differently my son starts to complain. In summer when we enjoy holidays with my partner’s family, there are his cousins that eat many unhealthy snacks. Then it becomes tough for me because my son starts comparing and he says: ‘why can he eat this and I not?’. Therefore, I allowed him to eat the snack too. It made me nervous and feeling bad” [NIT45].

What is remarkable is that quite some mothers from the South of Italy mentioned not to experience any value conflict, because they

Table 5
Frequency of value conflicts mothers from the North and South of Italy experience while providing snacks to their children aged 2–7 years.

Value conflict	North Italy (n = 20)	South Italy (n = 20)
Health vs. the child’s preference	13	8
Health vs social environment	15	5
No conflict, because the child gets everything he/she wants	0	6

provide their child with any snack he or she wants.

“I do not have that problem, because I give my son whatever he wants...” [SIT10].

“Because I work a lot, I spend not that much time with my son and for that reason when I am with him, I give him all he wants. I have spoiled him. Therefore, I have no conflicts with my son because I give him all he asks, but I know I am wrong... However, at the same time, it is difficult to change this because he is used to it now” [SIT18].

4. Discussion

Italy is a country with a great disparity of development between the Northern and Southern region (Ichino & Maggi, 2000; Ruggiero et al., 1999). In their food culture, strong regional differences are present too, for example, the morning snack in the North of Italy often consists of fruit, while in the South a filled sandwich is more often consumed as a snack in the mornings (Nardone et al., 2015). These differences could be caused by cultural characteristics and their historical roots (Cook & Crang, 1996). Our study revealed differences between mothers living in the North and the South of Italy in their considerations and value conflicts while providing snacks to their 2–7-year-old children. These differences between the mothers from the North and the South of Italy imply differences in regional culture. Minkov and Hofstede (2014) investigated regional cultures across Europe and confirmed the presence of groups with their own regional cultures, within a national culture, although their study did not cover Italy. For the present study, with its modest sample sizes, inferences about regional cultures can thus only be made with care.

4.1. Considerations in snack providing

North Italian mothers mentioned health-related considerations and their sub-constructs more often as relevant in snack providing compared to mothers living in the South. This is in line with the results of the study by Nardone et al. (2015) on the dietary habits of children, showing that unhealthy dietary habits were more common among children living in the South of Italy compared to children living in the North. In a study by Pizzo et al. (2010), it was seen that the prevalence of dental caries was high among South Italian children; one of the reasons for this was the high consumption of sweet snacks. One could tentatively draw links with regional cultures. According to Hofstede, Hofstede, and Minkov (2010), Italian culture is individualistic (as opposed to collectivistic) and restrained (as opposed to indulgent). This is in line with the considerations by mothers from the North, such as the healthiness of the snack and small portions (Table 2). Although no formal data are available on the Hofstede dimensions for the two regions, it is felt that the South has a more collectivistic and indulgent culture, closer to the patterns of e.g. Greece and Spain. This fits the answers from South Italian mothers: give the child what it wants. Specifically, it seems that in the North of Italy children's snack choice is conceptualized more as something related to individual health and choice, while in the South snack giving is seen more in relational terms, as a sign of warmth and belonging. This could indicate, in terms of Hofstede's dimensions of culture, that the culture in the South is more collectivistic and less restrained than the North.

The health-related consideration natural/fresh/organic was also mentioned more often by the North Italian mothers to be relevant in snack provision for their young children, compared to mothers from the South. Likewise, Filippini, De Noni, Corsi, Spigarolo, and Bocchi (2018) mentioned that the Italian procurement of organic food is still more prevalent in the North of Italy than in the South. Also, Vassallo, Scalvedi, and Saba (2016) found that consumers in the North of Italy had a stronger intention to buy organic foods compared to consumers in the South. Furthermore, mothers from the North of Italy mentioned variety, another health-related consideration, more often to be relevant compared to mothers from the South. Variety is considered by the

mother as a way to give a healthier diet to her child and therefore fits well in the individualistic culture. A healthy diet is focusing on the individual, rather than on the group. In a collectivistic culture, it is more about relationships and comforting your child, in an individualistic culture it is on doing the best for the individual, in this situation the mothers' child (Hofstede et al., 2010). In addition, de Mooij (2010) found that across Europe, intention to vary food choice correlates with the individualism of that country's culture, which is in line with our assumption that mothers from the North of Italy are maybe more individualistic compared to mothers from the South.

All mothers in this study mentioned the preference of the child to be important in snack choice, which was the same for the Italian sample in our previous study (Damen, Hofstede, et al., 2019). If a child does not like the snack, Italian mothers mentioned they would not provide it; the preference of their child is key in providing a snack. An explanation for this could be that the mothers would like to indulge their child. Additionally, Mascarello, Pinto, Parise, Crovato, and Ravarotto (2015) observed that Italian consumers overall highly value the taste of their food products, which could be another explanation for the importance of the child's preference in mothers' snack provision.

The time-related considerations convenience and making own foods are mentioned a bit more often by mothers living in the North of Italy, however, when looking at the percentages, this difference disappears. However, Casini, Contini, Marone, and Romano (2013) found that young people with children living in the North of Italy increased their use of ready to eat and easy to prepare products compared to what young parents did ten years earlier, which shows a more convenient way of consumption over the years.

The brand is the consideration showing differences between North and South Italian mothers in the product-related key theme. More South Italian mothers mentioned brand as a consideration to provide a snack compared to North Italian mothers. Mascarello et al. (2015) also mentioned the brand to be an important value in food choice for Italians, however, no clear difference between the regions was seen in that study. Pirani, Cappellini, and Harman (2018) also highlighted the pervasive influence of the brand on Italian family life. That brand is more often mentioned as a consideration could also be explained by the fact that Italy is an uncertainty avoiding culture (Hofstede et al., 2010), which highly values familiar things including food. Tiozzo, Mari, Ruzza, Crovato, and Ravarotto (2017) stated that Italians often do not trust the foods they consume. As well-known brands could be seen as familiar and safe to Italian mothers (Damen, Hofstede, et al., 2019), this could explain their high scores on the consideration brand.

4.2. Value conflicts

Mothers living in the North and South of Italy also differ in the value conflicts they experience. Mothers in the North mentioned experiencing value conflicts more often. These conflicts were all related to health. Health versus child's preference is the value conflict mentioned most often in total by the Italian mothers. Hayter et al. (2015) found that parents often come across differences between what they actually provide their children and what they would ideally like to provide. The conflict between health and indulgence is the value conflict most frequently occurring in food choice (Damen, Hofstede, et al., 2019; Damen, Luning, et al., 2020; Luomala et al., 2004). Also, Pescud and Pettigrew (2014) reported that mothers experienced more feelings of guilt when the food was unhealthier.

The value conflict health versus social environment was often mentioned by the Italian mothers in the current study. They mostly mentioned this social environment to be family members. The opinion of the family members is much taken into account in Italy (Crocetti & Meeus, 2014; León & Migliavacca, 2013; Tobío, 2017). Phull, Wills, and Dickinson (2015) mentioned conviviality (i.e. the pleasure of eating together) as a cornerstone of the food culture in Italy. Boak et al. (2016) also reported that the presence of family members could have an

influence on the foods mothers provide to their children. The presence of older siblings could also have an influence on the snacks provided (Damen, Steenbekkers, Fogliano, & Luning, 2020). Similarly, some studies mentioned that mothers could experience difficulties in the provision of snacks when family members like grandparents were around (Herman, Malhotra, Wright, Fisher, & Whitaker, 2012; Walsh et al., 2015).

A noticeable result is that the South Italian mothers quite often mentioned that they did not experience value conflicts at all because they provided their child with every snack it desired. They also mentioned the preference of their child, as expressed in percentage, more often compared to mothers from the North (Table 2). An explanation for this could be that South Italian mothers are more indulgent (Hofstede et al., 2010); this seems to be reflected in their snack provision. In addition, it seems that South Italian mothers prioritize a good relationship with their child above an individual theme like healthiness of their child, which could have its background in the more collectivistic culture of South Italy. Lo Cricchio, Lo Coco, Cheah, and Liga (2019) described that South Italian mothers highly valued affection in raising their children, which could be in line with these results.

5. Research considerations and recommendations

Differences in educational level and working status are present between the two regions (Ichino & Maggi, 2000; Odoardi & Muratore, 2019). Therefore, we did choose to attempt the level of educational attainment and working status equal between the participants, to make sure these differences would not affect our outcomes, as educational attainment can have an influence on snack choice considerations of mothers (Damen, Luning, et al., 2019). Furthermore, we attempt to have no differences in weight status (BMI) between the mothers and their children of both regions, as the prevalence of overweight and obesity is higher in the South of Italy compared to the North (Brunello & Labartino, 2014; Gallus et al., 2013; Mancini et al., 2016). However, since the mothers reported their weight themselves, it is possible that some of them have underestimated their weight, particularly those who are overweight as found in the review of Gorber, Tremblay, Moher, and Gorber (2007) and by Opichka and Smith (2018).

Some limitations according to this study need to be mentioned. Interviews were conducted in the native language of the participants, which could be seen as a positive aspect because participants could express themselves best in the native language. However, for analyzing the interviews, all data were translated into English which may have led to some loss of detail and interpretation. Besides, interviews were conducted by two different interviewers, but they used a structured interview guide, which was thoroughly explained before the study started, which should minimise differences in interviewing (Bryman, 2016).

The observed differences in considerations and value conflicts of North and South Italian mothers for providing snacks to their 2–7-year-old children might lead to differences in the types of snacks provided to the children. Especially the differences in health-related considerations between mothers living in the North and South of Italy could imply that children in the South of Italy are provided with less healthy snacks. The study of Menghetti et al. (2015) found that an unhealthy diet, including consumption of sweetened and salted snacks, was associated with higher obesity rates of children aged 6–17 years in the South of Italy. In the current study, we did not observe differences in body weight of the children, which could be caused by the young age of the children, so the effect on their weight does not yet appear. Although we recognize the complexity and multiplicity of the factors underpinning obesity, we cannot exclude that the differences in considerations and value conflicts between mothers of the North and South of Italy may partly contribute to the different rates of overweight and obesity as reported for the two regions in other studies (Binkin et al., 2010; Lazzeri et al., 2014; Menghetti et al., 2015).

6. Conclusion

To the best of our knowledge, no studies have been conducted previously that specifically focused on the differences in considerations and value conflicts of mothers living in the North and South of Italy, while providing snacks to their children aged 2–7 years. Our study indicated that overall, the Italian mothers only provided a snack when the child likes it. North Italian mothers revealed more health-related considerations when providing a snack, whereas mothers from the South considered healthiness as giving energy. The Northern Italian mothers overall experienced more value conflicts, which were all health-related. Apparently, even within the same country, with equal advertisement pressure, availability and familiarity of snacks, geographical differences among mothers' considerations and value conflicts for providing snacks exist. Our study provided indications that considerations and value conflicts when mothers provide a snack to their child can be also influenced by tradition and family culture. Future research in other European countries could help to strengthen these indications. A follow up deductive study could be designed to verify the outcomes of the current explorative study.

CRedit authorship contribution statement

Femke W.M. Damen: Conceptualization, Methodology, Formal analysis, Investigation, Data curation, Writing - original draft. **Pieter A. Luning:** Conceptualization, Methodology, Writing - review & editing, Supervision, Validation. **Nicoletta Pellegrini:** Conceptualization, Resources, Writing - review & editing. **Paola Vitaglione:** Resources, Writing - review & editing. **Gert Jan Hofstede:** Writing - review & editing. **Vincenzo Fogliano:** Writing - review & editing, Funding acquisition, Supervision. **Bea L.P.A. Steenbekkers:** Conceptualization, Methodology, Writing - review & editing, Supervision, Validation.

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