



# The Influence of Brand Equity Characters on Children's Food Preferences and Choices

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**Objectives** To assess the influence of brand equity characters displayed on food packaging on children's food preferences and choices, 2 studies were conducted. Brand equity characters are developed specifically to represent a particular brand or product. Despite existing literature suggesting that promotional characters influence children's food choices, to date, no research has assessed the influence of brand equity characters specifically.

**Study design** We recruited 209 children 4-8 years of age from schools and childcare centers in the UK. In a mixed-measures design, the children were asked to rate their taste preferences and preferred snack choice for 3 matched food pairs, presented either with or without a brand equity character displayed on packaging. Study 1 addressed congruent food-character associations and study 2 addressed incongruent associations. Participants were also asked to rate their recognition and liking of characters used. Wilcoxon signed-rank tests and  $\chi^2$  analyses were used where appropriate.

**Results** Children were significantly more likely to show a preference for foods with a brand equity character displayed on the packaging compared with a matched food without a brand equity character, for both congruent and incongruent food-character associations. The presence of a brand equity character also significantly influenced the children's within-pair preferences, within-pair choices, and overall snack choice (congruent associations only).

**Conclusions** Displaying brand equity characters promotes unhealthy food choices in children. The findings are consistent with those of studies exploring other types of promotional characters. In the context of a childhood obesity epidemic, the use of brand equity characters in the promotion of foods high in fat, salt, and sugar to children should be restricted. (*J Pediatr* 2016;177:33-8).

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A growing body of literature demonstrates that food marketing has an effect on children's food preferences, choices, and purchase requests<sup>1-4</sup> and has been identified as an important target for intervention in the prevention of childhood obesity.<sup>1</sup> Food promotion increasingly is conducted as part of an integrated and diverse marketing communications package, by which brand imagery is used across multiple platforms such as websites and social media, advergames, television (TV) commercials, sponsorship, point-of-sale promotions, and packaging.<sup>5</sup>

Promotional characters are a key persuasive tool for advertisers seeking to engage children with their brand, and children 2-7 years of age are increasingly influenced by imagery and symbolism in advertising.<sup>6,7</sup> Promotional characters are of particular concern because, although they can have positive effects on choice of healthier foods such as fruit and vegetables,<sup>8-10</sup> they have been found predominantly to promote foods that are high in fat, salt, and sugar (HFSS). A content analysis of child-targeted TV advertising across several countries found that up to 49% of food commercials contained promotional characters, of which 79% were for HFSS foods.<sup>11</sup> Similarly, in an analysis of 577 child-targeted TV food commercials, Castonguay et al<sup>12</sup> found that 73% included familiar characters, of which 72% promoted foods that were classified as being of low nutritional quality. Promotional characters also are used extensively on food packaging; an Australian study found that foods and beverages that displayed promotional characters on the packaging were, on average, less healthful than foods and beverages that did not.<sup>13</sup>

Lawrence<sup>14</sup> suggested that these characters are a tool for fostering a "brand-consumer relationship," whereby characters take on personalities that make them relatable, enabling them to communicate brand values to consumers. Consumers form affective relationships with media characters and personalities<sup>15</sup> and children are particularly susceptible to forming these parasocial relationships with media characters,<sup>10,16-18</sup> which reflect emotional friendships based on the attractiveness of the characters and the messages that they carry.<sup>19</sup> Thus,

|      |                              |
|------|------------------------------|
| BMI  | Body mass index              |
| HFSS | High in fat, salt, and sugar |
| TV   | Television                   |

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de Droog et al<sup>10</sup> suggest that parasocial relationship theory would predict that familiar characters elicit a positive elaborate affective response, which may subsequently lead children to favor products that display these characters.

There is a wealth of existing research indicating that promotional characters influence children's food preferences, choices, and consumption in favor of the foods they are promoting. These studies typically explore the impact of celebrity endorsers<sup>20</sup> or licensed characters, whereby characters from popular media are licensed by a company to promote their product.<sup>9,10,21-26</sup> Specifically, Roberto et al<sup>23</sup> found that licensed characters influenced children's preferences and choices in favor of those foods presented with characters on the packaging. Brand equity characters (also known as trade or spokes characters) are distinct from licensed characters, because they are created by food manufacturers solely for promoting a particular brand or product, having no identity beyond these associations (eg, Tony the Tiger for Kellogg's Frosted Flakes [Kellogg's, Manchester, United Kingdom]). They are used to build emotional relationships that cultivate brand loyalty, and this loyalty often persists into adulthood.<sup>4</sup> The power of brand equity characters may lie in the learned associations that consumers make between the character and the food with which they are associated. However, to date, no study has investigated the influence of brand equity characters on diet-related outcomes in children. The distinction is evident in regulatory approaches that restrict the use of licensed, but not brand equity, characters<sup>27</sup> when marketing HFSS foods to children, however, this approach does not seem to be evidence based.

To examine the influence of brand equity characters on food packaging on both children's food preferences (self-report of perceived liking) and snack food choices, we performed 2 studies using a modified version of Roberto et al.<sup>23</sup> In the study by Roberto et al, children were asked to taste 3 pairs of identical foods presented in matched packaging either with or without a licensed character and their subsequent preferences and snack choices were recorded. In our first study, character-product pairs were congruent (characters appeared on products they usually promote), and in the second study, the pairings were incongruent (characters appeared on products they do not promote). We hypothesized that children would prefer the food item with the brand equity character displayed on the packaging and that this preference would persist even when character-food associations were incongruent, and be more likely to choose as a snack the food items with brand equity characters displayed on the packaging.

## Methods

In total, 209 children aged 4-8 years took part (102 female and 107 male); 60 for study 1 and 149 for study 2 (reflecting the need to randomize to 3 groups in study 1 and 6 groups in study 2). Children were recruited from 5 primary schools and 2 child-care centers in the UK. Head teachers and directors of child-care centers issued letters to parents, which outlined the study and contained parental consent forms and questionnaires. The

questionnaire requested demographic and lifestyle information, including parental education, child's age and sex, ethnicity, and weekly TV and Internet usage. Additional factors measured in the parental questionnaire had no influence on findings so are not described here and these data are not reported. Participating children gave their verbal assent for participation in a food-tasting study and all data were collected on single-test days between February 2014 and February 2015. The studies were approved by the University of Liverpool's non-invasive procedures ethics subcommittee in 2013.

Three study foods were selected for use in these studies based on pilot work (unpublished data) that showed that these were recognized and preferred characters in children of the target age range: (1) Cheestrings (Kerry Foods, Ossett, United Kingdom); (2) Pom-Bear Potato Snacks – Original (Intersnack, Slough, United Kingdom); and (3) Coco Pops Snack Bar (Kellogg's). Images were selected in which the characters' facial expressions and hand gestures were similar, and were then matched for size. Cheestrings and Coco Pops Snack Bars were both presented each time in their entirety, as per the recommended portion size (both 20 g portions). To avoid the risk of children selecting the potato snacks as their final snack choice simply because the portion offered was larger than the other available snacks, approximately one-half the recommended portion of Pom-Bear Potato Snacks (approximately 9.5 g) were given to the children each time, ensuring that the amount of each type of food offered was similar visually.

All foods were presented in clear packaging including a sticker stating the name of the food in plain text (eg, "Cheestrings"). Sticker location, font, and color were kept consistent for each food sample. Children were presented with the foods in matched pairs, that is, 2 identical foods in matched packaging were offered, with the only variation being that 1 package in each pair also featured a brand equity character to the left hand side of the sticker. In study 1, the brand equity character appearing on the packaging was congruent with the food in the packaging (eg, Coco the Monkey on a Coco Pops Snack Bar), and in study 2, the character-product associations were incongruent (eg, Coco the Monkey on Pom-Bear Potato Snacks). All possible product and character permutations were included.

Participants were tested individually while seated opposite the investigator at a small table. Before testing, the investigator ensured that children understood and could use the child-friendly 5-point Likert scales featuring smiley faces. Children were presented with the first matched food pair, and the investigator instructed them to "Please eat a bit of this food" while pointing at one of the food items. When the child had finished eating, the investigator pointed to the other food item and said, "Now please eat a bit of this food." When the child had finished eating, the investigator asked, "Do they taste the same to you? Or point to the food that tastes best to you." The investigator then presented the child with a 5-point smiley face Likert scale, pointed at each of the food items in turn and asked, "Do you love it, like it, it's OK, don't like it, or hate it?" Finally the child was asked, "Which one would you choose for a snack?" This was repeated for each of the 3 matched food pairs; food

order and placement of the foods within the matched pairs (ie, brand equity character on the left or right) was randomized.

Next the children were shown a picture of each of the characters used and asked, “Do you recognize this character?” If they answered yes, they were asked, “Where have you seen this character before?” The investigator instructed the children to “Point at the face that best shows how much you like this character,” while children were presented with a 5-point smiley face Likert scale, providing them with the following possible responses: like a lot, like, it’s OK, don’t like, or hate. Finally, their 3 final food choices were placed in front of each participant and they were asked, “Which of these would you like to take away for a snack? You can eat this when your teacher or a member of your family says it’s OK.” The researcher repeated each response back to the children, to confirm their response was recorded correctly. Throughout the procedure, children could view only the food item(s) they were evaluating. Measures of height and weight were recorded discreetly and children were given an age-appropriate explanation for the study.

Our first hypothesis was that when presented with 2 samples of the same food in matched packaging, children would prefer the food item with the brand equity character on the packaging, and that this preference would persist for incongruent character–food associations. To test this, an average preference score was calculated for each child, where a preference for the brand equity character food was coded as +1, no preference as 0, and a preference for the non-brand equity character food as –1. A series of Wilcoxon signed rank tests were used to examine these average preference scores, the Likert scale ratings of liking across each of the 3 food pairs and also a combined average of all 3 Likert scale liking scores for each child. To test our second hypothesis (ie, that children would be more likely to choose the food items with brand equity characters on the packaging as a snack), a Pearson  $\chi^2$  test was performed on the combined total of all choices made in each study. A further  $\chi^2$  goodness-of-fit test was performed on the final snack choice in each study. Exploratory analyses were used to determine whether age, sex, body mass index (BMI), ethnic-

ity, parental education, TV/Internet hours, and character recognition or liking moderated children’s preferences or snack choices. Spearman rank correlation was used for scaled variables, Kruskal-Wallis tests for categorical variables and Wilcoxon Mann-Whitney  $U$  tests for dichotomous variables. The significance level was set at a 2-tailed  $\alpha < 0.05$ . When multiple comparisons were carried out, Holm-Bonferroni corrections were used<sup>28</sup> to correct robustly for type 1 errors while incurring less of a reduction in power than is found with the original Bonferroni procedure.<sup>29</sup> BMI was calculated using height and weight data and converted to an age- and sex-appropriate  $Z$  score using the World Health Organization Anthropometric Calculator software (World Health Organization Anthro for personal computers, Version 3.2.2., 2011; WHO, Geneva, Switzerland; <http://www.who.int/childgrowth/software/en/>). Weight status subsequently was defined using cutoff points, equivalent to adult BMIs of 25 kg/m<sup>2</sup> (overweight) and 30 kg/m<sup>2</sup> (obese).<sup>30</sup> When children refused to taste one of the food items or failed to make a clear decision on preference or choice, responses were coded as missing data.

## Results

The participating children predominantly identified as British/Irish–White (77.5% across both studies), with an age range of 4–8.9 years (mean,  $7 \pm 1.1$ ) (Table I). Those defined as normal weight accounted for 81% of the children, with 19% defined as overweight/obese (Table I). The parental questionnaire was returned by 169 parents (80.8%).

### Study 1

Children significantly preferred both Cheestrings ( $Z = -3.225$ ;  $P = .001$ ) and Coco Pops Snack Bars ( $Z = -2.245$ ;  $P = .025$ ) when a brand equity character was displayed on the packaging, compared with the same food presented in a package without the character (Table II). This effect was not seen for Pom-Bear Potato Snacks ( $Z = -0.897$ ;  $P > .05$ ). The preference for brand equity characters remained when a combined average liking score (across all 3 food pairs) on the Likert scales was used

**Table I. Characteristics of participating children (aged 4–8 years)**

|   | Study 1                  | Study 2                          |
|---|--------------------------|----------------------------------|
| Completed parental questionnaire, n (%)         | 40 (67)                  | 129 (87)                         |
| Age, mean $\pm$ SD (range), y                   | $7.2 \pm 1.1$ (4.1–8.7)  | $6.9 \pm 1.1$ (4.0–8.9)          |
| Sex, n (%)                                      |                          |                                  |
| Male  | 26 (43)                  | 81 (54)                          |
| Female  | 34 (57)                  | 68 (46)                          |
| BMI, mean $\pm$ SD (range), kg/m <sup>2</sup>   | $15.9 \pm 0.2$ (10.1–22) | $16.4 \pm 2.0$ (11.5 $\pm$ 25.1) |
| Ethnicity (%)                                   |                          |                                  |
| British/Irish – White                           | 88                       | 94                               |
| British/Irish – Black/Mixed/Other               | 9                        | 3                                |
| Non British – European                          | 3                        | 1                                |
| Asian   | -                        | 2                                |
| Parental Education Level (%)                    |                          |                                  |
| Graduate (or above)                             | 57                       | 43                               |
| Secondary education                             | 43                       | 57                               |
| Weekly Internet usage, mean $\pm$ SD (range), h | $3.4 \pm 3.6$ (0–9)      | $6.7 \pm 7.7$ (0–33)             |
| Weekly TV viewing, mean $\pm$ SD (range), h     | $13.2 \pm 5.7$ (0–39)    | $14.5 \pm 8.1$ (2–44)            |

**Table II. Children’s preferences based on 5-point Likert scale ratings of taste**

| Food Item(s)           | Study 1 (n = 60) |                   |                | Study 2 (n = 149) |                    |                |
|------------------------|------------------|-------------------|----------------|-------------------|--------------------|----------------|
|                        | Z*               | P                 | r <sup>§</sup> | Z*                | P                  | r <sup>§</sup> |
| Cheestring             | -3.225           | .001 <sup>†</sup> | 0.42           | -3.57             | <.001 <sup>†</sup> | 0.29           |
| Coco Pops Snack Bar    | -2.245           | .025 <sup>†</sup> | 0.29           | -2.10             | .036               | 0.17           |
| Pom-Bear Potato Snacks | -0.897           | .370              | 0.16           | -1.95             | .052               | 0.16           |
| Combined total         | -2.537           | .010 <sup>†</sup> | 0.33           | -3.82             | <.001 <sup>†</sup> | 0.31           |

\*Nonparametric Wilcoxon signed rank test.

<sup>†</sup>Using Holm-Bonferroni corrections for multiple comparisons, significance is taken at  $P < .017$  for the most significant result (0.05/3 comparisons), at  $P < .025$  for the second (0.05/2 comparisons) and  $P < .05$  for the third.

<sup>‡</sup>Significant at  $P < .05$  level.

<sup>§</sup>Effect size estimates using correlation coefficient.

( $Z = -3.266$ ;  $P = .001$ ). A further Wilcoxon signed-rank test confirmed that, overall, children displayed a preference, favoring the food items with brand equity characters, compared with those presented in plain packaging. Each child’s average liking score overall was  $0.14 \pm 0.42$  (median, 0.33; IQR, -0.25-0.33) and was significantly greater than 0 ( $Z = -2.537$ ;  $P = .01$ ), demonstrating a preference for brand equity packaged foods. Across all food pairs, 46% of children correctly identified that there was no difference between the matched pairs, 33% preferred the food item with the brand equity character on the packaging, and 21% preferred the food item without the brand equity character (Table II).

For the final snack choice, children were significantly more likely to choose a brand equity character food item than a nonbrand equity character food item, with 73% of children selecting a snack with a brand equity character,  $\chi^2(1) = 13.07$ ,  $P < .001$  (Table III). For total snack choices made (60 children  $\times$  3 choices, resulting in 179 valid choices), 69% of children chose the food item with the brand equity character,  $\chi^2(2) = 5.53$ ,  $P = .06$ , a trend favoring foods with the brand equity character.

**Study 2**

Children significantly preferred Cheestrings ( $Z = -3.57$ ;  $P < .001$ ) presented with the incongruent brand equity characters displayed on the packaging, compared with the same food presented in a package without a character (Table II). The majority of children also chose both Coco Pops Snack Bars and Pom-Bear Potato Snacks with the incongruent brand equity

character present more often; however, these findings fell short of significance ( $Z = -2.10$  [ $P = .036$ ] and  $Z = -1.95$  [ $P = .052$ ], respectively). Preference for brand equity characters remained when an average liking score on the Likert scales was used, combining all 3 food pairs ( $Z = -4.01$ ;  $P < .001$ ). Wilcoxon signed-rank test confirmed that, overall, children displayed a preference, favoring foods with incongruent brand equity characters compared with those presented in plain packaging. Each child’s average preference score overall was  $0.13 \pm 0.40$  (median, 0.00; IQR, 0.00-0.33) and was significantly greater than 0 ( $Z = -3.82$ ;  $P < .001$ ), demonstrating a preference for brand equity packaged foods. Across all food pairs, 45% of children correctly identified that there was no difference between the matched pairs, 40% preferred the food item with the brand equity character on the packaging, and 15% preferred the food item without the brand equity character.

When making within-pair snack choices, children were significantly more likely to choose a food item with an incongruent brand equity character displayed on the packaging than those without a brand equity character, with 58% of the 424 valid responses being for an incongruent brand equity character snack,  $\chi^2(1) = 11.56$ ,  $P = .001$ . However, when asked to make a final snack selection, no difference was found, with 50% of the children choosing a snack food with the incongruent brand equity character on the packaging and 50% choosing a food item without the character ( $P > .05$ ; Table III).

**Exploratory Analysis**

Exploratory analysis found no associations between the demographic and lifestyle factors measured (age, sex, ethnicity, parental education, BMI, weekly TV viewing, weekly Internet use, or average character recognition and liking scores) and the outcome measures (preference, liking, or choice). Overall, 69% of children correctly identified the Cheestring character, 91% identified the Pom-Bear character, and 92% identified the Coco Pops character.

**Discussion**

This study provides experimental evidence of a relationship between the display of brand equity characters on food packaging and children’s preferences and food choices, similar to that found for licensed characters.<sup>23</sup> In addition, these data demonstrate that this relationship is maintained even when food-

**Table III. Children’s snack choices\***

|                        | Study 1 (n = 60)          |                    |                     | Study 2 (n = 149)         |                   |                     |
|------------------------|---------------------------|--------------------|---------------------|---------------------------|-------------------|---------------------|
|                        | $\chi^2(df)$ <sup>†</sup> | P                  | r <sup>‡</sup> [CI] | $\chi^2(df)$ <sup>†</sup> | P                 | r <sup>‡</sup> [CI] |
| Cheestring             | 20.76(1)                  | .000 <sup>†</sup>  | 0.59 [0.37-0.75]    | 10.92(1)                  | .001 <sup>†</sup> | 0.27 [0.11-0.42]    |
| Coco Pops Snack Bar    | 6.67(1)                   | .010 <sup>†</sup>  | 0.33 [0.08-0.54]    | 0.25(1)                   | .619              | 0.04 [-0.12-0.2]    |
| Pom-Bear Potato Snacks | 2.40(1)                   | .121               | 0.20 [-0.05-0.43]   | 4.63(1)                   | .031              | 0.18 [-0.02-0.33]   |
| Combined total         | 5.53(1)                   | .060               | 0.30 [0.05-0.52]    | 11.56(1)                  | .001 <sup>†</sup> | 0.28 [0.12-0.33]    |
| Final snack choice     | 13.07(1)                  | <.001 <sup>†</sup> | 0.47 [0.23-0.65]    | 0.01(1)                   | .935              | 0.01 [-0.15-0.17]   |

\*Pearson  $\chi^2$  test.

<sup>†</sup>Using Holm-Bonferroni corrections for multiple comparisons, significance is taken at  $P < .017$  for the most significant result (0.05/3 comparisons), at  $P < .025$  for the second (0.05/2 comparisons) and  $P < .05$  for the third.

<sup>‡</sup>Pearson correlation coefficient with a CI of 95%.

character associations are incongruent, that is, a brand equity character is presented on the packaging of a food they normally do not promote. Overall, children reported a preference for the foods with a brand equity character displayed on the packaging and this was true across 2 of the 3 matched food pairs (Cheestrings and Coco Pops Snack Bars) when food-character associations were congruent and 1 of the 3 (Cheestrings) when food character associations were incongruent. Furthermore, it is worth noting that, when associations were incongruent, the greater preference for both Coco Pops Snack Bars and Pom Bear Potato Snacks with characters present tended toward statistical significance.

Across all 3 food pairs, the majority of children chose the food with the brand equity character displayed when asked which they would prefer as a snack, ranging from 58%–87% of children when the food-character association was congruent, to 52%–64% when incongruent. The findings of our first study lend support to de Droog et al,<sup>10</sup> who found that perceptually congruent character-food associations based on color similarity alone were inadequate for children to perceive them as congruent, and suggest that characters that display the shape of the food, in addition to the color, were more likely to be perceived as congruent perceptually. All character-food combinations used in this study were perceptually congruent, with characters matching foods in color, and, in addition, both Cheestrings and Pom-Bear Potato Snacks also matched their character on shape. However, this does not explain similar findings from the second study, in which character-food combinations displayed no perceptual congruency, yet children rated foods with incongruent brand equity characters as tasting nicer and favored the incongruent brand equity character foods when making within-pair snack choices. Similarly, it does not seem that it is simply a learned association between congruent food products and their related brand equity characters. Perhaps the effects of brand equity characters on children's diet-related outcomes are best explained by parasocial relationship theory, where exposure to these characters led to the formation of relationships that elicit conscious affective responses toward the character and also products that then display this character.<sup>10</sup>

There are several ways in which brand equity characters differ from licensed characters, with the association of the brand equity character being limited to a particular brand/product and licensed characters having a myriad of potential platforms via which associations can be formed (eg, TV shows, movies, food packaging, toys, and/or cereal bowls). This multifaceted approach could potentially lead to much stronger perceived relationships between a consumer and the licensed character. Considering these differences, it is interesting that the effects of these 2 types of promotional characters (brand equity and licensed) on children's food choices and preferences seem to be so similar. This may suggest that the learned associations are not the driving factor behind the influence of promotional characters, but rather the simple presence of any well-liked and/or recognized character on the food packaging results in preference.

This explanation is consistent with our findings for study 2, where the food-character associations were incongruent, yet

children still displayed a preference for the food items with an incongruent brand equity character displayed on the packaging. However, it does not explain why children were not more likely to select the incongruent brand equity character food as their final snack choice. One potential explanation for this finding could be that, immediately before making their final snack selection, children were questioned about their recognition and liking of the characters. This may have increased the salience of the incongruence, which in turn may have deterred them from selecting foods with an incongruent character displayed on the packaging.

Overall, these findings suggest that the effects of brand equity characters may be carried over to products with which they are not associated normally, and add to the current literature detailing the use of both promotional characters<sup>9,10,21–26,31</sup> and branding<sup>9,32,33</sup> for influencing food choice and preferences in children.

Our study has some limitations. Food preference studies cannot include an exhaustive list of all branded foods, and so personal preference may affect findings. In addition, there is likely to be variation in the amount of prior exposure children receive to particular brand equity characters and products. This study aimed to address this with the inclusion of the pilot work to ensure that liked and recognized characters by this population were used. One limitation is the lack of inclusion of healthier and/or less palatable food items; however, brand equity characters are used almost exclusively to promote HFSS foods in the UK and no suitable character-food associations were found that met these criteria. Although the order of the foods being presented was randomized, and the within-pair order of each food was counterbalanced (character first or no character first), future studies may wish to ensure children rinse their mouths between tasting each item to ensure that lingering tastes do not affect ratings for subsequent foods. Another limitation of the study was that the investigator was not blind to the character manipulation or the study aims, rendering the study at risk from the influence of demand characteristics (the idea that participants may be aware of what the researcher is trying to investigate, or anticipates finding, and what this implies for how participants may be expected to behave). The study sample was not ethnically diverse and very few children were classified as overweight/obese, meaning that comparisons between these different populations could not be drawn.

The study has several strengths, including using a randomized design, which allowed for inferences by only manipulating the presence of brand equity characters displayed on the packaging. Children did not receive feedback during the study, and the order of the foods and the within-pair items were randomized. By providing the option for children to say the items tasted the same, distortion of our findings for preference was minimized. In addition, to avoid demand characteristics for recognition (in which children may claim to recognize characters despite not actually recognizing them, believing this to be the response preferred by the researcher), responses were recorded only as “yes” if children could then correctly identify where they had seen the character (eg, TV advertisements, food type, brand name).

Overall, the results of this study provide evidence that brand equity characters displayed on packaging influence children's food preferences and choices, in favor of the foods on which characters appear.

Although brand equity characters could be used in a positive way to promote healthier food items to children, currently they are used predominantly to market HFSS foods. These findings, therefore, are of particular concern. Our findings regarding displayed brand equity characters parallel the current evidence on the influence of licensed characters on children's food preferences and choices. Due to existing evidence, some countries (such as the UK) have regulated the use of these licensed characters in TV advertising. Our findings will help to inform the international debate on effective food marketing policy, suggesting that policymakers should consider extending current regulations to include the use of brand equity characters if we are to reduce the power of HFSS marketing to influence children's diets. ■

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