

## **Influencer marketing and health repercussions: a literature review on the impact of influencers on eating behavior and body self-perception**

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# **Influencer marketing and health repercussions: a literature review on the impact of influencers on eating behavior and body self-perception.**

This article reviews the scientific literature regarding the impact of influencer marketing on eating habits and the development of attitudes related to body cult. The authors conducted a systematic review to identify empirical articles focused on Influencer Marketing strategies related to food or body cult, retrieved from PubMed, Scopus, and WoS databases. The title and abstract of the 80 unique articles were reviewed to exclude those not meeting the inclusion criteria. Finally, a content analysis of 34 selected articles was performed. The most common objective was to examine the characteristics of influencers in terms of message effectiveness, followed by assessing the impact of influencers on eating behaviors. Regarding study conclusions among influencer marketing strategies on eating habits, no article included positive conclusions on influencer marketing and food. In the case of the articles focused on evaluating influencer marketing and its relationship with body cult, there was greater diversity in the conclusions. This article provides the first systematic review of the existent scientific literature on the topic. It is an overview of relevant research and maps the key topics examined to date by researchers. Decision-makers may find this information useful when implementing actions to promote healthy eating through effective strategic proposals.

Keywords: Influencer marketing, systematic review, food marketing, body cult

## **Introduction**

The Internet has changed the way audiences obtain information, form opinions, and make decisions. Messages spread quickly through social networks and public behavior can be modified or conditioned (De Veirman, Cauberghe, and Hudders 2017). Digital marketing seeks to intentionally influence target audiences by means of techniques such as Word of Mouth Marketing (WOMM), which operates by converting commercial information into stories containing content for certain audiences (Kozinets 2010) and may include other practices such as guerrilla marketing, viral marketing, or influencer marketing.

The origin of influencers dates back to the mid and late 2000s, when blogs were popular many people considered them a source of information (Borchers 2019). Today, influencers are online content creators who develop a personal style and who connect with certain audiences. In marketing, these creators, who usually specialize in specific

content, collaborate with brands, organizations or companies through publications designed as testimonials. Their goal is to increase product sales or generate curiosity about an idea or service by means of their personal stamp of approval (Kay, Mulcahy, and Parkinson 2020). Influencer publications attract more attention than company or organization produced content given that the public perceives influencer messages as recommendations from conventional and close people (Vinerean 2017), and this perception is the basis of the trust and loyalty influencers establish and build within their community of followers.

The reach of the content published by influencers can extend through citations and uploads by followers and other users (Castelló- Martínez 2016). Content notability amplifies the discourse of influencers and provides them with the chance of reaching varied aged audiences (Martínez Valerio and Mayagoitia 2021). However, exposure patterns vary among adolescents and young adults and these groups are skeptical towards traditional advertising, which helps explain why influencer marketing is especially relevant in that group (Haenlein et al. 2020). For companies, brands and organizations, building trust is crucial, and influencer advertising allows the public (particularly for younger audiences) to develop this trust and feeling identified while recommending products or services.

In short, marketing, social networks and influencers are closely related. Companies and corporations requiring exposure use social networks to achieve visibility, often using influencers as a tool to spread chosen content online.

### *1.1. Body and diet as sales arguments in influencer marketing*

As Facebook and Instagram revealed in September 2021 it is known that exposure to social networks affects how adults and young people see themselves. Various authors have provided evidence (De Jans et al. 2021; Coates et al. 2019; Tiggeman and Anderberg 2020; Lowe-Calverley and Grieve 2020) on how body image perception and dietary guidelines are influenced by the content viewers are exposed to online publications and shared by influencers. Basically, there are two ways to tackle this situation: control and regulate the algorithms that select the photos and videos users are exposed to or reinforce the idea of educating minors on how to navigate in a world dominated by social networks, providing them with the tools necessary to make judicious decisions for themselves

(Milmo and Skopeliti 2021). Unicef Spain (2021, 52) has recommended addressing this concern and promote healthy habits among children and teenagers.

Therefore, this research seeks to review those relevant studies published in peer-reviewed academic journals across diverse fields was conducted in order to identify key themes and dominant concepts regarding influencer marketing, food habits, and physical appearance.

In particular, the present systematic review of research has been motivated by the following rationales:

1. Within the bear market conditions for advertising investment in Spain in 2020, influencer marketing and native advertising (Infoadex 2021) experienced most growth. Influencers create high-quality and aspirational content and in doing so have achieved a following similar to that of celebrities which they monetize through product promotion (Lowe-Calverley and Grieve 2020). Advertisers consider influencers as attractive brand ambassadors since are able to convey authenticity (Audrezet, de Kerviler, and Moulard 2018), credibility (Djafarova and Rushworth 2017; Lim et al. 2017) and trust to consumers by creating a close and committed (Silva et al. 2021) relationship with their viewers. Exposure to unhealthy food is no different, and it has been shown that exposure is followed by an increase in consumption among children (Coates et al. 2019). This is particularly worrying given that it has been shown that childhood obesity not only poses a health risk but has emotional and self-esteem consequences (De Jans et al. 2021). Likewise, in the food and fitness marketing context, influencers' bodies become brand values to communicate an ideal body image (Powers and Greenwell 2016). Body image is of special concern to young generations, and marketers are fully aware of it. Thus, the role of bodies as an advertising attraction in the content created by fitness influencers has been studied (Silva et al. 2021). It has been seen that the more present this type of influencer is, the more engaging the content becomes. These authors emphasize the need for future studies that analyze the role of followers of this sponsored content on social networks.

2. The direct effect of the influencers' lifestyle on eating habits (Coates et al. 2019; De Jans et al. 2021) and on the level of body satisfaction among social network users (Tiggeman and Anderberg 2020; Lowe-Calverley and Grieve 2020; Su, Kunkel, and Ye 2021), more markedly among younger audiences is a known fact. Tiggeman and Anderberg (2020) report that body dissatisfaction increases in both men and women, with gender associated differences. Regarding the impact of influence marketing on the choice

of food by minors, there is evidence that shows that this persuasive practice can be effective in promoting nutritionally low-quality foods, but not in promoting healthy nutrition (Coates et al. 2019; Smit et al. 2019; De Jans et al. 2021). However, showing the negative effects of a diet saturated in fats and sugars in networks does influence viewers in having them reduce their consumption of these products (De Jans et al. 2021).

3. On the other hand, many of the studies reviewed on advertising in new media (Van Reijmersdal and Rozendaal 2020; De Jans and Hudders 2020; Feijoo and García, 2020; Van Dam and Van Reijmersdal 2019; Feijoo and Pavez 2019; López-Villafranca and Olmedo-Salar 2019; Tur-Viñes, Núñez Gómez, and González-Río 2018; Hudders et al. 2017; Van Reijmersdal et al. 2017; Vanwesenbeeck, Walrave, and Walrave 2017; Ramos-Serrano and Herrero-Diz, 2016; Rozendaal et al. 2013; Van Reijmersdal, Rozendaal, and Buijzen 2012) highlight how the line that sets entertainment content and commercial content apart, especially on social networks is becoming increasingly blurry. Consequently, it is necessary to put special focus on which information is processed when they receive this type of content given that the format used in this type of advertising lacks standardization, and greatly depends on the context in which the content is developed. Feijoo et al. (2021) highlighted that minors between 10 and 14 years old do not identify the persuasive intentionality of publications in which influencers act as brand ambassadors on social networks.

4. The level of exposure to advertising by adolescents on their frequently used screens, especially through the mobile phone, which has become the main internet access device (IAB Spain, 2021). And one of the recurring categories in this digital and social media context is food products, beverages and sweets, in most cases products which are considered as unhealthy products or brands (Alruwaily et al. 2020; Coates et al. 2020; Feijoo, Sádaba, and Bugueño 2020; Gascoyne et al. 2021; Tur-Viñes and Castelló-Martínez 2021).

This article reviews the scientific literature devoted to studying the impact of influencer marketing on eating habits and the development of attitudes related to body cult.

## **Materials and methods**

During the month of January 2022, articles were retrieved from PubMed, Scopus and WoS databases by using the keywords "Marketing" and "Influencers," and "food" or

"body" and applying filters to ensure keywords were found in the title or in the abstract and that the selected articles had been published within the last 10 years (2011-2021). Initially, 209 results were obtained. Ninety-five (95) were repeats among databases and were discarded. Next, articles were reviewed to ensure study criteria were met which led to discarding an additional 80 articles. Exclusion criteria were: 1) articles were not empirical articles (meaning they were letters to the editor, speaker corner, or the like); 2) articles had been originally written in languages other than English or Spanish and/or 3) articles did not include an abstract (Figure 1). Thus, only those articles focused on Influencer Marketing strategies related to food or body cult were included.

“[insert Figure 1]”

Once the sample was obtained, a content analysis was performed. An information collection protocol was developed based on the methodology used by Packer et al. (2022) which contained the following variables:

- (1) Year of publication of the article
- (2) Analysis objective
- (3) Sample size
- (4) Sociodemographic characteristics of the sample (age, sex, country of origin)
- (5) Approach, methodologies, and information collection tools
- (6) Type of influencers per tier (nano influencer: 1,000 to 10,000 followers; micro influencer: 10,001 to 100,000 followers; macro influencer: 100,000 to 2 million) and specialization.
- (7) Item recommendations
- (8) Main conclusions and conclusion validity (positive: promotes healthy eating; negative: does not promote healthy eating; neutral: there is no relationship between content consumption and behavior change).
- (9) Academic field of the journal following the information matrix for the analysis of journals (MIAR) classification.

To ensure the rigor of the analysis, a concordance analysis was performed on 30% of the sample randomly selected using Google's random number generation option. Concordance analysis results were 93.6% in agreement with the criteria applied by two of the researchers.

Following the concordance analysis, data was exported to version 25 of the SPSS program for the statistical analysis.

## **Results**

Nineteen of the 34 articles (55.9%) (see Annex I) were focused on influencer marketing and eating behavior, and 15 (44.1%) on influence marketing and the body cult. The greatest number of studies on influencer marketing was carried out in the United Kingdom and the Netherlands, and represent 29.4% of the total sample, with 5 articles (14.7%) per country. International studies represented 14.7% of the sample, followed by articles focused on the US and Australia (8.8% each) and Spain or Germany (5.9% each). Other countries such as Saudi Arabia, Ireland, Brazil, Belgium, and France were represented with only one article each (2.9%).

The most frequent objective was to examine the characteristics of influencers in terms of message effectiveness (38.2%), followed by assessing the impact of influencers on eating behaviors (23.5%) and on body satisfaction or dissatisfaction (11.8%). Other objectives that were also pursued were analysis of the frequency with which promoted food products appeared in influencers videos, frequency of exposure of target audiences to influencer channels, evaluation of food types that appeared in influencer channels or the impact of influencers on physical exercise (Table 1).

“[insert Table 1]”

Regarding the sociodemographic characteristics of the samples analyzed, most articles chose participants over 18 years of age for evaluating the impact of influencer marketing, and a smaller number of articles focused on minors aged 12 years old or young people or 13 to 17 years old. (Figure 2). It is also important to highlight that, although most articles include representative samples for both genders, in those cases in which the articles focused on only one of them, the majority did so by focusing on females (29.4%) rather than males (2.9%). One-gender studies mostly focused on legally adult population (80% and 100%, respectively).

“[insert Figure 2]”

With regard to the point of view of the analysis, articles mostly focused on the impact of influencer marketing from the point of view of the receiver (70.6%) and only 10 (29.4%) took the advertiser or influencer's point of view.

Methodologically, quantitative methodologies prevailed (n=22; 64.7%), followed by qualitative (n=6; 17.6%) and experimental (n=4; 11.8%), with questionnaires being the most used information collection tool (n=18; 52.9%). Content analysis was also frequently used (n=8; 23.5%). Regarding qualitative tools, the most widely used was focus groups (n=2; 5.9%), and ethnography/netnography (n=2; 5.9%), and to a lesser extent, in-depth interviews and semiotic analysis (n=2; 5.9% in both cases). Finally, the only neuromarketing methodology used was eye tracking (n=2; 5.9%). (Figure 3).

“[insert Figure 3]”

Largely, articles failed to report the number of followers per influencer (52.9%); however, when this information was available, studies mostly focused on macro influencers, that is, with between 100,000 and up to 2 million followers (Figure 4).

“[insert Figure 4]”

Per thematic specialization of influencers, diversity reigns and includes fitness, lifestyle, fashion, and beauty. However, no references to influencer's specialization (67.6%) or clearly defined specialization (14.7%) are present.

In terms of social media, the most represented social network was Instagram (44.1%), followed by YouTube (23.5%) and Twitter (2.9%). A high percentage of articles failed to report social networks (20.6%).

Regarding study conclusions, among influencer marketing strategies covering eating habits (n=14; 23.5%) no article included any positive conclusion on influencer marketing and food; 85.7% (n=12) included a negative conclusion and 14.3% (n=2) concluded there was no association between exposure to these marketing strategies and changes in eating behavior (see Table 1). In the case of the articles focusing on evaluating influencer marketing and its relationship with body cult (n=7; 11.8%), a greater diversity in the conclusions was present, 14.3% (n= 1) of articles considered that influencer marketing could have a positive impact on recipients; 57.1% (n=4) of articles concluded



influencer marketing has a negative impact, and 28.6% (n=2) did not find a direct association between exposure to messages through influencers and changes in the habits of physical exercise of those exposed to them (Table 2).

“[insert Table 2]”

Conclusions present in the articles focused on analyzing the characteristics of influencers from the point of view of the strategic effectiveness of marketing actions (n=13; 38.2%), focus on highlighting the importance of social listening, and parasocial relationships and interactions as two of the characteristics that most contribute to increasing the influencer effectiveness (n= 5; 38.5%); followed by the relevance of having an audience who identifies with the influencer to optimize message effectiveness (n=4; 30.7%); the importance of influencer selection for their ability to project values and attributes on the brand (n=3; 23.1%) and, finally, an article (7.7%) focuses on the fact that effectiveness of actions through influencer marketing is target-age dependent and highlights the importance of age segmentation.

As for the recommendations, articles advise on expanding marketing legislation through social networks to protect the most vulnerable (26.5%), on incorporating advertising and digital literacy programs (14.7%), on including recommendations for improving the effectiveness of marketing actions (17.6%) and on improving strategies for promoting attractive healthy foods (8.8%).

Given the multidisciplinary of approaches from which this topic can be interpreted, the field of specialization of the journals from which the analyzed articles were extracted was taken into consideration. Most of the articles had been published in journals related to medical and health sciences (n =12; 35.3%), social sciences (n=8; 23.5%), psychology (n=7=20.6%), business and entrepreneurial activity (n=6; 17.6) and, to a lesser extent, education (n=1; 2.9%).

### **Discussion and implications**

Due to the increasing importance of influencer marketing strategies in business, marketing and communication, many articles have focused on collecting evidence to identify the most relevant elements of influencer marketing thought to increase its effectiveness. This review confirms that parasocial interaction based on listening, proximity and closeness, and influencer and target audience familiarity and recognition

constitute some of the characteristics that increase the persuasive effect of influencer marketing strategy compared to traditional advertising rhetoric.

Several authors highlight the importance of influencer selection in order to have his/her own features (may these be values or attributes) project on the products. This strategy stems from the notion that product choices by consumers are not solely based on functional features, but above all on the symbolic value (Bhat and Reddy 1998) that advertisers project in their message, which represents the aspirational model to which audiences feel connected.

Influencer marketing regarding food products required quantitative methods to determine its impact on audience behavior given the diversity of studies and conclusions of the articles. The majority concludes that these strategies have a negative impact on the behavior of the recipients, as these messages focus on unhealthy products that do not promote healthy eating or propose diets that are not endorsed by nutrition experts. This becomes relevant when the promoted products may have direct or indirect repercussions on health, especially when they are aimed at the younger population. As social cognitive theory states, marketing actions can model the behavior of their followers, who learn through observation and imitation (Bandura 2001) and, in the case of food-related products, can lead to behaviors that may contribute to the development of health problems derived from risk factors such as overweight and obesity (Coates et al. 2019; Powell et al. 2015).

Results in food product marketing are not that different from those obtained after analyzing the impact of influencer marketing on body cult. The latter also revealed that influencer marketing strategies can contribute to recipient feelings of body dissatisfaction given their own bodies nonconformity with the ideal or filtered bodies influencers promote. These results are particularly relevant when marketing strategies are aimed at the youngest and most vulnerable population (Feijoo et al. 2021) who continue being so despite the increase in advertising literacy of recent decades (De Jans et al. 2019). Interestingly, despite the acknowledged vulnerability to influencer marketing strategies among minors, this segment does not represent the most widely studied group in this bibliographic review.

From a practical standpoint, this review can contribute to establishing codes of ethical self-regulation that may allow for improving influencer marketing actions without the need for external regulation, as many authors propose in the articles reviewed herein. The fact that the younger populations do not necessarily have the ability to identify the

economic interests that drive influencer marketing action and rely on the product valuation they see would make this type of code particularly relevant.

Thus, this study fulfills the need for a compilation of the main findings on the most relevant elements which increase the effectiveness of influencer marketing in food and body cult and identifies the main characteristics that an influencer should have. Decision-makers may find this information especially useful when implementing actions to promote healthy eating through effective strategic proposals.

Lastly, this review contributes in several ways to marketing research and practice. On one hand, it presents an overview of relevant research and maps the key topics that have been examined to date by researchers. On the other hand, it provides the first systematic review of the extant literature on the topic.

Although this review attempts to be an exhaustive review and includes the main databases both in the field of medical sciences and social sciences, one of the main limitations of the study is that articles published in non-indexed journals have not been included.

On the other hand, secondary data analysis does not allow for a precise comparison of all the variables studied, since the articles that make up our sample do not always select the same study indicators, which impedes uniform comparisons.

Finally, this study has focused solely on food product and body cult influencer marketing, and results cannot be extrapolated to general influencer marketing or to other sector influencer marketing.

Regarding future lines of research, despite the fact that scientific literature (Tiggeman and Anderberg 2020) shows that exposure to this type of content promotes body dissatisfaction in females and males alike, some studies identified behavioral gender differences when exposed to the same message. The health implications of influencer marketing strategies reveal the significance future works of this type may have in studying the impact of influencer marketing actions and the need to include the gender perspective in result interpretation.

A thorough evaluation of influencer marketing strategies is needed due to the potential influence these marketing strategies may exert on the beliefs of its recipients regarding their physical appearance and healthy eating habits and, therefore, future health repercussions. Studies applying mixed methodological approaches that allow for collecting information on frequency of exposure and on the ability receivers have to identify the persuasive intention of these contents; for gaining insight into the imaginary

around eating habits, physical activity and the importance of physical appearance which derive from exposure to sponsored influencers, mainly among the least analyzed population aged 13 to 17 years are needed. Awareness in these areas is necessary to guide minors' learning process and help dispel myths and misinformation.

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### **Declaration of interest statement**

None

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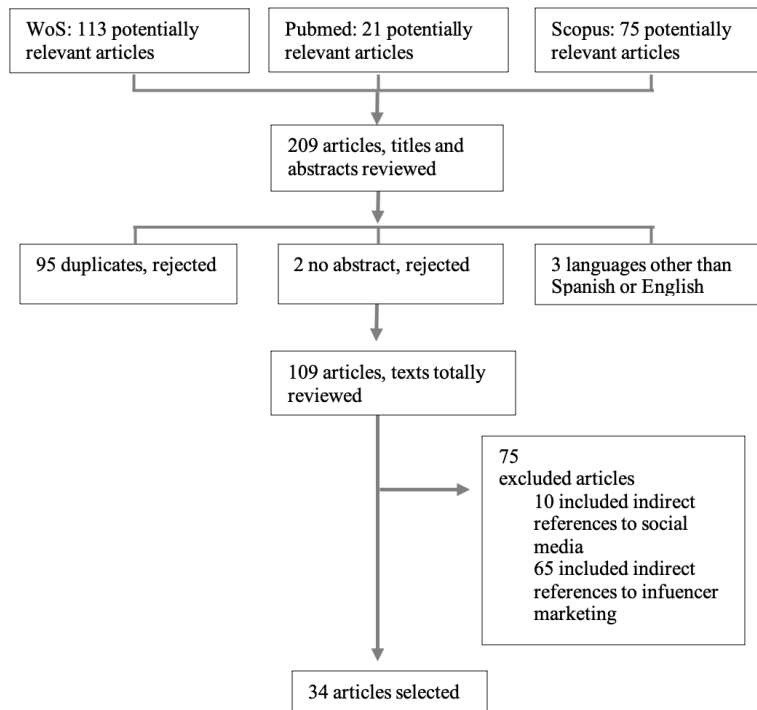
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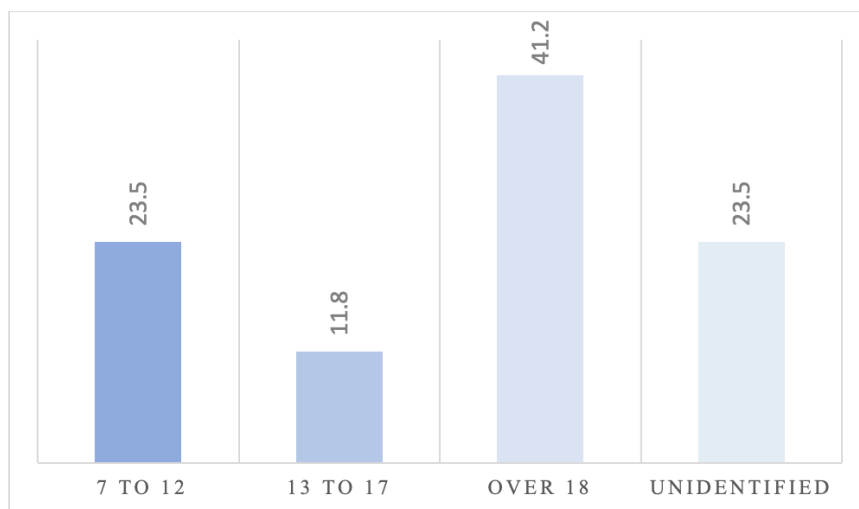
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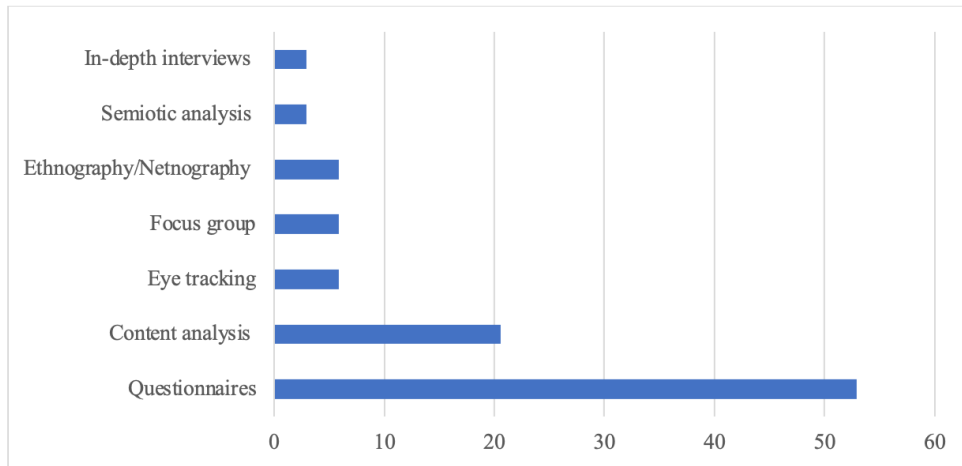
**Figure 1. Prisma flow chart for sample selection** / Source: Information compiled by the authors



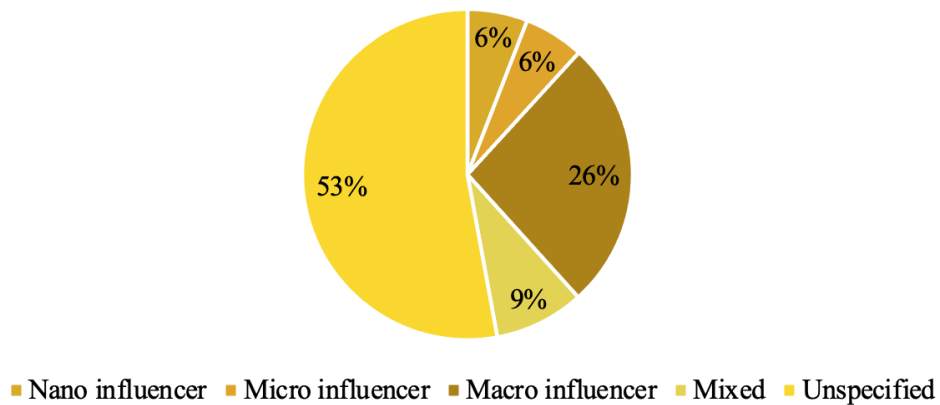
**Figure 2. Percentage of age ranges studied in articles on influencer marketing and food and body cult** / Source: Data compiled by the authors



**Figure 3. Percentages of information collection tools used in the analyzed articles /**  
Source: Data compiled by the authors



**Figure 4. Percentage of influencers analyzed in the articles by number of followers /**  
Source: Data compiled by the authors



**Table I. Main objectives of the reviewed articles on exposure and behavioral changes**

/ Source: Data compiled by the authors

AREA	PLOT	%
Food	Influencer impact assessment in eating behaviors	23.5
	Frequency of promoted food products appearing in influencer videos	5.9
	Target exposure frequency to influencer channels	5.9
	Food type products appearing in influencer channels	2.9
Body cult	Impact of influencers on body satisfaction or dissatisfaction	11.8
	Impact of influencers on physical exercise	5.9
Both	Characteristics of influencers in terms of message effectiveness	38.2

**Table II. Main conclusions on exposure and behavioral changes in the reviewed articles** / Source: Data compiled by the authors

AREA	VALENCE	ARGUMENT	No. (%)
FOOD	POSITIVE	-	0
	NEGATIVE	Marketing strategies through influencers impact the consumption of unhealthy foods.	4 (33.3)
		Most of the products or brands promoted on children's influencer channels are unhealthy products.	5 (41.7)
		Influencers who are not experts in nutrition can transmit inaccurate messages or unhealthy diets that can have a negative impact on the health of the audience.	3 (25)
	NEUTRAL	The consumption of healthy food by the influencer does not modify the eating behavior of the recipients.	2 (14.3)
BODY CULT	POSITIVE	The sporty habits shown by the influencer can contribute to increasing the sporty lifestyle of the audience.	1 (14.3)
	NEGATIVE	Ideal or filter-modified bodies of influencers can contribute to generating dissatisfaction among viewers with own bodies and encourage them to make decisions that put their health at risk.	4 (57.1)
	NEUTRAL	The sports habits shown by the influencer do not modify the habits of the recipients.	2 (28.6)

**APPENDIX I. Reviewed articles focused on Influencer Marketing strategies related to food or body worship.**

LAST NAME, YEAR <sup>1</sup>	TITLE OF THE ARTICLE
FOLKVORD, 2020	The Effect of the Promotion of Vegetables by a Social Influencer on Adolescents' Subsequent Vegetable Intake: A Pilot Study
SMIT, 2020	The Impact of Social Media Influencers on Children's Dietary Behaviors
COATES, 2020	"It's Just Addictive People That Make Addictive Videos": Children's Understanding of and Attitudes Towards Influencer Marketing of Food and Beverages by YouTube Video Bloggers.
GROVER, 2016	"Infecting" those we care about: Social network effects on body image
KELLY, 2021	Australian Children's Exposure to, and Engagement With, Web-Based Marketing of Food and Drink Brands: Cross-sectional Observational Study
ALRUWAILY, 2020	Child social media influencers and unhealthy food product placement
FOLKVORD, 2019	Children's bonding with popular YouTube vloggers and their attitudes toward brand and product endorsements in vlogs: an explorative study
DE JANS, 2021	Digital food marketing to children: How an influencer's lifestyle can stimulate healthy food choices among children
COATES, 2019	Food and Beverage Cues Featured in YouTube Videos of Social Media Influencers Popular With Children: An Exploratory Study
GASCOYNE, 2021	Food and drink marketing on social media and dietary intake in australian adolescents: Findings from a cross-sectional survey
MARTÍNEZ-PASTOR, 2021	Health-related food advertising on kid YouTuber vlogger channels
GOODMAN, 2020	Mapping digital foodscapes: Digital food influencers and the grammars of good food
ASHMAN, 2021	Netnography and design thinking: development and illustration in the vegan food industry
FOLKVORD, 2020	Promoting healthy foods in the new digital era on Instagram: an experimental study on the effect of a popular real versus fictitious fit influencer on brand attitude and purchase intentions
COATES, 2019	Social Media Influencer Marketing and Children's Food Intake: A Randomized Trial
LYNN, 2020	Sorting the Healthy Diet Signal from the Social Media Expert Noise: Preliminary Evidence from the Healthy Diet Discourse on Twitter
COATES, 2019	The effect of influencer marketing of food and a "protective" advertising disclosure on children's food intake
ALMOUSA, 2020	The Influence of Social Media on Nutritional Behavior and Purchase Intention Among Millennials
BYRNE, 2017	The Role of Influencer Marketing and Social Influencers in Public Health
MAÑAS-VINIEGRA, 2019	Fashion promotion on instagram with eye tracking: Curvy girl influencers versus fashion brands in spain and portugal
RODNER, 2021	"Is it all just lip service?": on Instagram and the normalisation of the cosmetic servicescape
LEFEBVRE, 2021	An investigation of influencer body enhancement and brand endorsement
SCHOUTEN, 2020	Celebrity vs. Influencer endorsements in advertising: the role of identification, credibility, and Product-Endorser fit
LOWE-CALVERLEY, 2021	Do the metrics matter? an experimental investigation of instagram influencer effects on mood and body dissatisfaction
DÁVILA-RUIZ, 2021	Examining effects of photography in social media and the mediation role of perceived authenticity.
JANSSEN, 2022	Influencer advertising on Instagram: product-influencer fit and number of followers affect advertising outcomes and influencer evaluations via credibility and identification
TIGGEMANN, 2020	Muscles and bare chests on instagram: The effect of influencers' fashion and fitspiration images on men's body image

<sup>1</sup> First author's last name and year of publication.

MAÑAS-VINIEGRA, 2020	Neuromarketing as a strategic tool for predicting how Instagramers have an influence on the personal identity of adolescents and young people in Spain
GIL-QUINTANA, 2021	Realfooders Influencers on Instagram: From Followers to Consumers
PILGRIM, 2019	Selling health and happiness how influencers communicate on Instagram about dieting and exercise: mixed methods research
SILVA, 2021	The body as a brand in social media: analyzing digital fitness influencers as product endorsers
DUPLAGA, 2020	The Use of Fitness Influencers' Websites by Young Adult Women: A Cross-Sectional Study
SU, 2021	When abs do not sell: The impact of male influencers conspicuously displaying a muscular body on female followers
SOKOLOVA, 2021	You follow fitness influencers on YouTube. But do you actually exercise? How parasocial relationships, and watching fitness influencers, relate to intentions to exercise