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Food and health: dominant frames in Spanish press

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Abstract

Introduction: The impacts of food on citizens' health is an issue currently included in both the political and media agendas. Using the principles of framing theory, this article analyses the discursive strategies used in the coverage of this issue in the three most-read newspapers in Spain: *El País*, *La Vanguardia* and *El Mundo*. **Methods:** The study is based on the analysis of all the information pieces on nutrition and health published during the first half of 2014 in the aforementioned newspapers. The analysis of these texts pays special attention to the identification of the frames most-commonly used in the coverage of this topic. **Results and conclusions:** Eating disorders, diets, and especially obesity, have become the most-covered topics in the field of food and health. There is a limited level of journalistic specialisation in this field, and there are omissions of important information in the journalistic pieces on food and health, such as the name of the writer of the articles, as well as the authors and sponsors of the research studies cited as sources.

Keywords: Food; Health; Press; Framing.

Contents: 1. Introduction. 2. Objectives and hypotheses. 3. Methods. 4. Results. 4.1. Sections, genres, authors and sources. 4.2. Thematic frames. 5. Discussion and conclusions. 6. References.

Translation by CA Martínez-Arcos (PhD in Communication from the University of London)

1. Introduction

For a large part of the population, the topic of food and health is full of dramatic connotations. “Few people –too many people– directly dies of hunger; a lot of people dies as a result of diseases or infections that become life-threatening because their bodies are weakened by a lack of food and cannot fight the diseases or infections that a normally-fed person would not even notice” (Caparros, 2015, p. 22).

While this is happening in the third world, in the so-called developed countries access to food is rarely a real problem. Consumers are more concerned about the ingredients or calories of what they consume while the media contribute to this concern by informing, advising and disseminating all kinds of content about what is healthy and unhealthy. Today’s citizens are better informed than ever before, and the attention they pay to food safety results in increased control and regulations from public and private bodies. However, paradoxically, as Gracia Arnaiz and Díaz Méndez point out, “never before consumers had been found so disoriented and confused by the proliferation of food tips and recommendations”, which leave them confused “about what is good food” (Gracia Arnaiz and Díaz Méndez, 2012, p. 29).

Always, but especially when health is what is at stake, the media have the task to inform with accuracy and responsibility. This article aims to verify whether they media comply with these requirements or whether there is room for improvement.

This study is not the first in this area since other authors have already analysed food and health, and their coverage in the press. The previous studies include the recent works on health and communication carried out by *L’Observatori de la Comunicació Científica* of the Pompeu Fabra University of Barcelona, in collaboration with the Catalan Agency for Food Safety. The results of other studies on this subject have been published in various articles, like the one focused on genres and health in the daily press (Revuelta, 2004) and more general articles on health and the media in Spain (Revuelta et al., 2006).

In the field of food there are several studies focused on information treatment and dissemination. In the field of nutrition in general, Fúster et al. (2009) have confirmed that more than half of food-related news items refer to food and health and that the least-written about topic is food quality. Fúster et al. have also confirmed the interest and concern for issues related to nutrition and healthy eating among the population.

The Mediterranean diet, in particular, has been examined by several authors, like Martínez-Carrasco et al. (2004) and García Lucio (2015). All of these authors offer guidelines for communicating the benefits of this diet and confirm the confusion created by the lack of quality scientific information in the media.

Regarding the nutritional values of food, Alzate Narváez (2013) found out that while information on nutritional contents is in the rise in the media, this information is deficient in terms of sources and fact checking. The informative treatment and the involvement of the media in eating disorders has also been a line of research in this field (Westall, 2010; Plaza, 2010).

On the other hand, obesity and its representation in the media as well as its impact on the public perception of the problem, has also been analysed by different authors: Evans *et al.* (2003), Lawrence (2004) and Sandberg (2007). Finally, it is important to highlight the studies on the possibilities of the media, such as radio, to transmit information that can improve eating habits and health of the population (Bernabeu-Peiró, 2015).

However, it is not so common to find studies covering all the possible references to health and nutrition in the news coverage of the Spanish press. Based on this situation, this research study aims to contribute to this area with a more generic but exhaustive approach to the understanding of the information treatment given by the Spanish daily press to the health/food pairing.

2. Objectives and hypotheses

The general objective of this study is to analyse the content of the informative texts on food and health published by the most-read Spanish national newspapers.

To achieve this objective, we formulated several specific objectives:

- Establish how many information pieces about food are published by *El País*, *El Mundo* and *La Vanguardia*, and how many of these are related to health.
- Describe the diversity of sections and genres in which these pieces are presented, in order to be able to determine whether there is some sort of relation between the selected genre, the depth and the approach of the information pieces.
- Quantify the diversity of authors and sources of these texts, in order to determine the degree of specialisation and depth used to address these themes.
- Identify the thematic frames and evaluation tone or character of these information pieces.
- Compare the data extracted from the content analysis to identify the different informative treatments offered by each medium to the health/food pairing.

The hypotheses that guide this study are the following:

Hypothesis 1: food and health issues require greater specialisation from the journalists writing on these topics.

Hypothesis 2: the studied information pieces resort to different genres, being the interpretive genres with a critical tone the most appropriate.

Hypothesis 3: the main sources are medical, although there is a deficit of expert sources when it comes to elaborate the contents.

Hypothesis 4: the different thematic frames have an unequal presence in the studied media.

Hypothesis 5: the tone of the texts will vary depending on the type of frame and the area/perspective from which the information is reported.

3. Methods

For this study we selected the three Spanish newspapers with the largest circulation in 2014, according to data from the Spanish Circulation Audit Office (Oficina de Justificación de la Difusión, OJD): *El País* and *El Mundo*, published in Madrid, and *La Vanguardia*, with headquarters in Barcelona.

Table 1. Circulation of the three most-read Spanish newspapers in 2014

Newspaper	City	Total circulation
<i>El País</i>	Madrid	238,560
<i>El Mundo</i>	Madrid	139,549
<i>La Vanguardia</i>	Barcelona	135,824

Source: OJD (Spanish Circulation Audit Office)

The analysed period covers the first six months of 2014, from January to June. The selection of contents has been carried out by means of specialised hemerographic search tools (pressreview of Kantarmedia, Kiosko and Más, Orbyt) as well as the app developed by *La Vanguardia*. The key terms used in the search were: “food safety” “food security” (*seguridad alimentaria*), “food risks” (*riesgo alimentario*), “agriculture” (*agricultura*), “food” (*alimentos*), “eating” (*alimentación*), “livestock” (*ganadería*), “fishing” (*pesca*), “food industry” (*industria alimentaria*), “health” (*salud*), “nutrition” (*nutrición*), and “allergies” (*alergias*).

The first search round produced 644 information journalistic pieces on food. Of these, 146 (22.6% of the total) also addressed issues of health in relation to food.

Once the corpus of research was selected, we used content analysis to quantify such aspects as section of location, genres, authors and cited sources, in order to make “reproducible and valid inferences from data to their context” (Krippendorff, 1990, p. 28).

To establish a classification of sources on health and food we took into account the classification formulated by Pinzón-Ríos, Ocampo-Villegas and Gutiérrez-Coba in their study on the “Journalistic treatment of Corporate Social Responsibility of the food sector in Colombia” (2015, p. 145). Moreover, for the classification of government sources we used the one established by Héctor Borrat (1989, p. 59). Finally, we used framing theory (Bateson, 1972; Tuchman, 1983; De Vreese, 2001; Goffman, 2006) to identify the most dominant frames.

The relationships between food and health include a field of contents with multiple branches, so instead of using a deductive method, based on the categorisations already established by other authors, we opted for an inductive technique. Thematic frames have been established after the observation and analysis of the framing devices identified by Entman (1993) and Tankard (2001): keywords, sources, topics, and arguments that are present in the titles, subtitles, sidebar information, summaries, quotes, and the body of the news.

The resulting thematic frames are: diagnosis, effects, innovation, recommendation/prevention and risks. The diagnostic frame can be found in the classification formulated by Eilders and Lüter (2000), although with subtle differences.

Two different variables were added to these thematic frames to allow for differentiations. One is related to the evaluative tone of the information piece, which are concepts that have already been applied in other studies that distinguish the positive, negative or neutral tone of information (Igartua *et al.* 2007; Bizer and Petty, 2005; Kioussis, 2004). A text on food and health can be said to have a positive tone when it highlights the benefits of food to health and a negative tone is when the content highlights the disadvantages or damages of certain foods or diets. Meanwhile, A text can be said to have a neutral tone when it has a more informative and aseptic character.

The second variable correlates the thematic framing with the field from which the information is framed. We differentiated between four fields: scientific/medical, legal, industrial, and political/institutional. This parameter is directly, but not exclusively, related to the sources used to design the news. Thus, for example, sometimes the content has a bias clearly linked to the food industry, but this industry is not directly cited as a source.

These variables act as framing devices that not only clarify the approaches of the information but also may reflect contradictions about the treatment given to the same subject in different news stories, which is common in this matter.

The application of this method to the analysis of the coverage of food and health has already been enriched by the work of other authors: Sánchez Castillo (2011); Gruber (2011); López Villafranca (2012); Oliver, Salvador and Gallardo Paúls (2014); Marin *et al.* (2015) and Pinzón-Ríos (2015), among others.

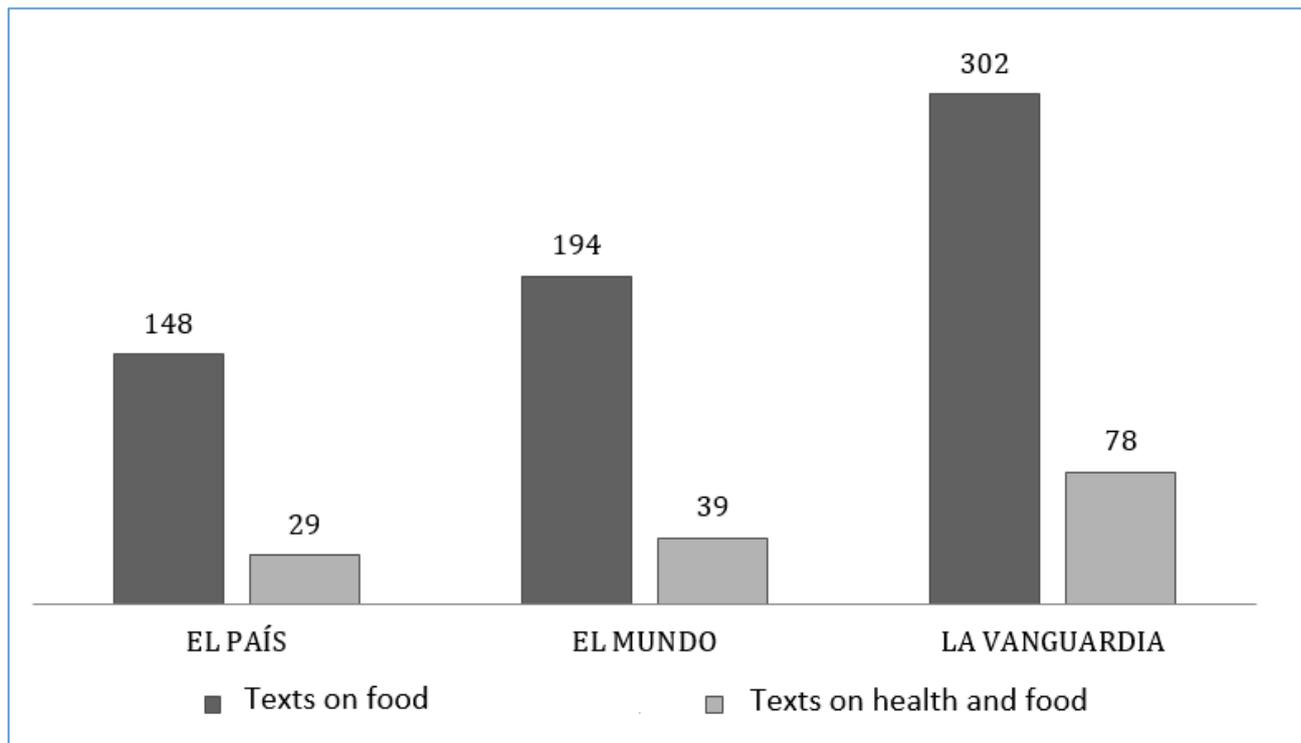
4. Results

4.1. Sections, genres, authors and sources

Between January and June 2014, a total of 644 texts on food were published, and 146 (22.6%) of them corresponded specifically to the field of food and health. As Figure 1 shows, *La Vanguardia* was the newspaper with the largest number of pieces, with 78, followed by *El Mundo* with 39, and *El País* with 29.

However, the percentage differences between the three media were not very significant. In the case of *La Vanguardia*, of the total number of texts related to food, 25.8% were located in the “Food and health” section. This percentage was 19.5% in *El País* and 20.1% in *El Mundo*.

Figure 1. Texts on “Food” in general and on “Food and health”



Source: Authors' own creation

a) Sections

Although the names of the sections vary in each medium, it is important to note that the three main Spanish newspapers rarely place food and health news in the so-called hard-news sections, such as Politics and Economy. On the contrary, this type of topics (see table 2) tend to be located in sections such as “Life style” or service journalism. Traditionally, the Spanish press had the tendency to present these issues in a section called “Society”, but in recent years, this section has often been divided into more specific subsections.

El País places more than half of its texts on food and health in the section named “Life & Arts” (*Vidas & Artes*) and “Society” (which is a sub-section of the former). *La Vanguardia* also places about 50% of its texts in the macro-section “Trends” (*Tendencias*), which combines news on quality of life issues with local news.

Unlike its two rivals, *El Mundo* places most of its texts on food and health in its thematic supplement “Innovators” (*Innovadores*), which combines news on food and, especially, the food industry, with news on science and technology.

Table 2. Sections in which “Food and health” content is published

	<i>El País</i>		<i>El Mundo</i>		<i>La Vanguardia</i>		Total	
	N	%	N	%	N	%	N	%
<i>Tendencias / Vidas & Artes / Sociedad / Ciencia</i>	17	58.6	6	15.3	36	46.2	59	40.5
<i>Vivir / Local</i>	1	6.8	6	15.3	26	33.3	33	22.5
<i>Innovadores</i>			19	48.6			19	12.9
Opinion	5	17.6			4	5.1	9	6.2
Other	2	6.8	2	5.2	3	3.9	7	4.7
Back page	1	6.8			4	5.1	5	3.4
Economy / money					5	6.4	5	3.4
Column			4	10.4			4	2.8
Spain	1	3.4	2	5.2			3	2.2
Front page	2						2	1.4
TOTAL	29		39		78		146	

Source: Authors' own creation

Another section where the analysed themes are placed is the local section, which is evident in the case of *La Vanguardia* and *El Mundo*, although in the daily booklet “Living” these themes coexist with others dedicated to celebrities and fashion.

In a tertiary level, the texts on food and health are located in the “Opinion” section (9 out of 146 texts). It is striking that only two news on food were placed on the front page, in both cases in *El País*, devoted to the Dukan diet case and aging prevention.

b) Journalistic genre

Table 3. Journalistic genres

	<i>El País</i>		<i>El Mundo</i>		<i>La Vanguardia</i>		Total	
	N	%	N	%	N	%	N	%
News	10	37.9	31	79.5	29	37.3	71	48.6
Feature	11	34.5	5	12.8	13	16.6	28	19.2
Interview	1	3.4	1	2.6	5	6.4	7	4.8
Opinion	5	17.3	2	5.1	31	39.7	38	26.1
Other	2	6.9	-		-		2	1.3
TOTAL	29		39		78		146	

Source: Authors' own creation

The three newspapers under analysis exhibit notable differences in the choice of genres to present news related to food and health. Explicative/interpretive genres are predominant in *El País*, but only

slightly above the news genre. *El Mundo* publishes the largest number of texts in the news genre (79.5% of the pieces). *La Vanguardia*, on the other hand, opts for the opinion genre, mainly due to a series of fixed collaborators in its section “Living” (*Vivir*), which features specialist Magda Carlas, whose texts would be half way between the feature article and opinion article, with a clearly educational vocation. Some of the educational texts written by Magda Carlas are: “Pros and cons of Iberian ham”, “Dietary reflections at the beginning of the year”, “About exercise, health and diet”, “About abdominal fat, children and diet”.

If we take in consideration the totality of the texts collected from the three newspapers, the news genre is the predominant one, since it is used in practically half of all cases.

c) Authors

Table 4. Authors with at least five texts

Author	Newspaper	Number of texts	% of the newspaper
Magda Carlas	<i>La Vanguardia</i>	22	28.2
Ana MacPherson	<i>La Vanguardia</i>	8	10.3
Celeste López	<i>La Vanguardia</i>	8	10.3
María Climent	<i>El Mundo</i>	7	17.9
Esteve Giralt	<i>La Vanguardia</i>	5	6.4
Andrea Pelayo	<i>El Mundo</i>	5	12.8
Raquel Vidales	<i>El País</i>	5	17.2
Emilio de Benito	<i>El País</i>	5	17.2

Source: Authors’ own creation

The 146 texts published were written by 52 different authors, which results in an average of 2.8 texts per person. Unlike other fields of service journalism, in which there has been a remarkable development of journalistic specialisation, texts on food are often written by external collaborators who are experts in the field (nutritionists, physicians, veterinarians, etc.).

This is the case of doctor and food specialist Magda Carlas, who is the most common writer on issues of food and health in *La Vanguardia*, writing from the fixed section “Nutrition”, contained in the supplement “Vivir” of this newspaper. In fact, 28% of the pieces published by this newspaper during the period under analysis are written by this author. At a considerable distance are journalists Ana MacPherson and Celeste López, the first one specialised in science journalism and the second one located in the newspaper’s Madrid office, both with eight texts each. These three authors, alongside with Esteve Giralt, are responsible for 55.2% of the texts published by *La Vanguardia*. The

rest of the authors -19 in total- have a reduced participation, while the number of unsigned texts is six.

In the case of *El Mundo*, María Climent is the author of the largest number of texts, seven in total, all of them published in the supplement “Innovadores”, followed by Ángeles López, from the “Science” section, with five. However, what stands out in this newspaper is the large number of unsigned texts, 12, which is nearly one-third of all the texts. The remaining 15 texts were written by 15 different authors.

Something similar occurs in *El País*. Texts on food and health were written by 13 people. Only two of them –Raquel Vidales and Emilio de Benito– signed five or more texts. Four texts are unsigned, while the remaining 15 texts are distributed among 13 authors.

In view of the small number of texts signed by the journalists of the three analysed newspapers –with the exception of the informative articles of Magda Carlas in *La Vanguardia*–, there are doubts about the existence of a high level of journalistic specialisation in the Spanish press on issues related to food and health. Chimeno, in his analysis of the inadequacy of the journalistic practice on health and social demands, has pointed out that “the solution to such situation involves, mostly, the creation of a team of real journalists specialised in health issues, in order to correct the errors that are present in this type of information, as a consequence of the use of monographic specialists or journalists” (Chimeno, 2004, p. 440).

From the point of view of the authors’ gender, it is important to note the preponderance of women among the authors of the texts on food and health. Of the authors with at least five pieces, six are women and two are men.

d) Sources

Table 5. Types of sources cited in texts on “Food and health”

Type of source	<i>El País</i>		<i>El Mundo</i>		<i>La Vanguardia</i>		Total	
	N	%	N	%	N	%	N	%
Medical/ scientific	23	26.5	12	20.7	33	34.1	68	28.1
Food and agriculture sector	10	11.4	14	24.2	14	14.4	38	15.7
Citizen groups / NGOs	6	6.9	2	3.5	8	8.2	16	6.6
Governmental / political	8	9.2	12	20.7	7	7.2	27	11.2
Public administrations	17	19.6	3	5.1	11	11.3	31	12.8
Research reports / articles	17	19.6	11	18.9	12	12.4	40	16.5

Other media	1	1.1	2	3.5			3	1.2
Gastronomy	1	1.1	1	1.7			2	0.8
Other	4	4.6	1	1.7	12	12.4	17	7.1
Total sources	87		58		97		242	
Texts with no source	1	3.4	9	23.1	27	34.6	37	

Source: Authors' own creation

Proportionally, *El País* is the newspaper that uses the largest number of sources. Only one of its texts does not mention its sources. At the other end is *La Vanguardia*, which does not specify the origin of the information in a third of the texts. In the case of this medium, this high proportion would be justified by the fact that it publishes a large number of opinion collaborations. One example is the section of “Nutrition” of specialist Magda Carlas, who gives tips to the reader and in the majority of cases does not mention explicitly the sources of the issues covered.

In global terms, most of the sources correspond to the medical-scientific area (doctors, nutritionists, researchers). However, in the case of *El Mundo*, the sources with the largest presence belong to the Food and agriculture sector category (food producers, farmers, stockbreeder, etc.). This may be due to the weight of the *Innovadores* supplement, which fundamentally focuses on the food production sector and contains the voice of its protagonists. This newspaper is also the one that turns more often to governmental and political sources, while *El País* and *La Vanguardia* largely opt for organisations and agencies that depend on the different public administrations.

An interesting fact in relation to the sources is the importance given to research articles published in international scientific journals. However, when these sources are used, the names of the researchers and their academic affiliation are not always mentioned, while the sponsor of the research is rarely mentioned. On other occasions, the cited source is reports prepared by various agencies related to health or food safety, such as the WHO and the EPSA (European Food Safety Authority).

On the other hand, the presence of voices of social or citizen groups, associations of the sick and NGOs is pretty scarce. The presence of these sources represents only 6.6% of total (the percentage is slightly higher in the case of *El Mundo*). Among the social or citizen groups that are cited as sources are the Spanish Federation of Coeliac Associations, the CEACCU consumer association, and the Association against Anorexia and Bulimia (ACAB).

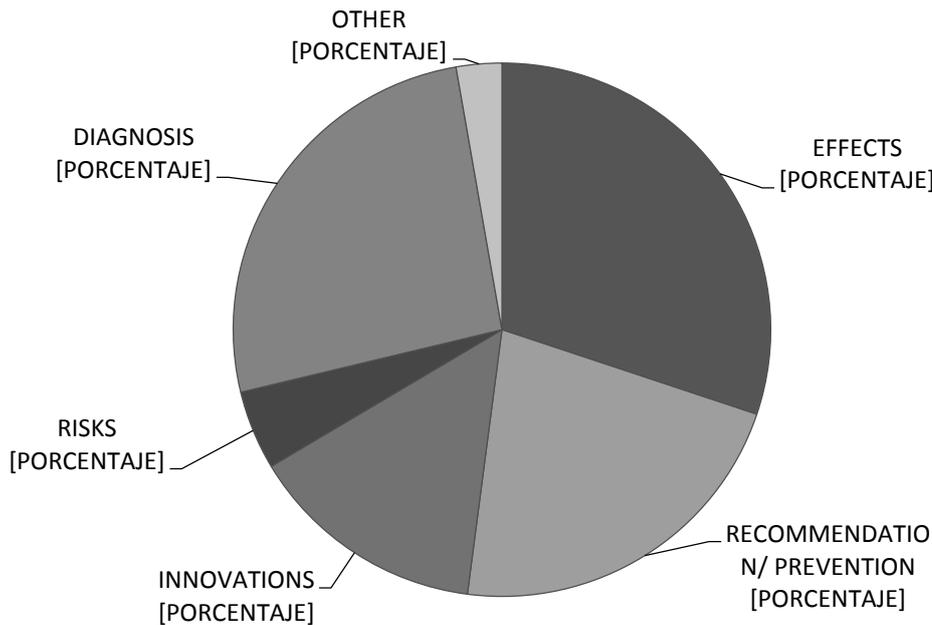
4.2. Thematic frames

Food and health issues are addressed from very different areas and approaches. Bearing in mind that the content of the texts can include more than one frame, the more common frames are the following: effects, recommendation/ prevention, innovation, risks, diagnosis, and others.

Each of these thematic frames has a particular evaluative tone or character that clarifies the perspective or orientation of the content. There are three different evaluative tones: positive, negative

and neutral, which in this case would translate into benefits and dangers to health. The analysis of frames also takes into account the field of knowledge from which the information is framed. In this sense, we have identified four different categories: medical/scientific, business, political-institutional, and legal. The distribution of the different frames in the total number of texts is presented in Figure 2.

Figure 2. Thematic frames used in the area of “Food and health”



Source: Authors' own creation

As shown in the previous figure, the predominant frames are effects, with 30%, followed by diagnosis and recommendation/prevention with 26% and 22%, respectively. Much less common are the frames of innovation, with 14%, and risks, with only 5%. The particularities of each different thematic frames and their presence in the analysed media are examined in the following sections:

a) Effects

30% of the texts report on the effects of both particular foods and diets. This is the largest thematic frame in the global sample, but it is also in *La Vanguardia* with a 32%. In *El País*, the presence of the effects and diagnostic frames is the same, 32% each. In *El Mundo*, the percentage drops to 26%, outnumbered by the innovation frame, with a 44%.

La Vanguardia uses this frame in most of the texts published in the column of Magda Carlas dedicated to nutrition, with generally uses a neutral and informative tone to explain the nutritional qualities of different foods and myths about nutrition are debunked, as in the texts: “Myths and

falsehoods about water” (06/03/2014), “About quinoa and its dietary virtues.” (23/05/2014) and “Advantages and virtues of strawberries” (27/03/2014).

In *El País* the effects frame is scattered in different sections and focuses on explaining the possible dangers to health of certain diets and the benefits of little-known fungi such as the *yarsagumba*: “The miraculous larva” (15/06/2014).

The positive evaluative character is priority in 45% of the content, while the negative tone is used in 39% of the cases. The neutral, generally informative, tone is used in 16% of the cases, which correspond to pieces that address the advantages and disadvantages of some foods or diets with a neutral tone.

However, this distribution varies across newspapers. *El País* and *La Vanguardia* maintain a relative balance in the tones used, with a slightly higher use of negative tones, while *El Mundo* uses more a positive tone in 80% of their texts, and a negative tone in the remaining 20%. In fact, it is interesting that foods as unpopular as transgenic foods and saturated fats receive a more positive treatment. “Who's afraid of purple tomato?” (30/01/2014) argues that this genetically modified vegetable, according to its creators, “has anti-inflammatory properties and helps in the prevention of cancer thanks to its antioxidants which are present in conventional vegetables”. “Are saturated fats so bad?” (23/03/2014), affirms that saturated fats do not provoke heart problems based on work published in *Annals of Internal Medicine*.

There are in fact only two news containing a critical view, and one of them is only partially negative, since the same information includes the negative effects of beer and the positive effects of coffee: “coffee gives you memory, beer in excess takes it away” (*El Mundo*, 19/01/2014).

In other newspapers, the negative tone is used to address different diets, the gluten-free diet, the gel diet, and particularly the Dukan diet. The expulsion of Dr. Pierre Dukan, known worldwide for the diet named after him, from the French Medical Board, became one of the main news. This event took place in January but was featured until February, fuelled by the controversy about its risks. Both *El País* and *La Vanguardia* published three pieces on this topic. In both newspapers, the authors of these pieces use a negative tone and use testimonies of nutritionists and doctors to dismantle the claims of the Dukan diet. Only the Mediterranean diet receives the approval of all newspapers under study.

Effects frames, with an either positive or negative evaluative character, usually rely on reports, observation-based research or preliminary studies whose quality is not always proven. As a result, as Cristina García explains, “the message that is transmitted on one day is contradicted by other information published weeks later (or perhaps by other medium), which generates a sense of uncertainty” (García, 2015, p. 313). A clear example of this contradiction is one piece published on 17 January by *La Vanguardia*, which cites a research by professors from University College London: “it is noted when people drink more than 36 grams of alcohol a day (or three glasses of wine) the cognitive decline starts at younger ages”. Three months later, on April 15, the paper refers to a study published in 1977 by French researchers, and other unnamed subsequent studies to comment that “the moderate consumption of wine, but not of other alcoholic beverages, is associated with a

reduction of 50% in the risk of dementia”. The differences, if they exist, go unnoticed for average readers.

b) Diagnosis

This frame encompasses all those texts that try, by means of studies, surveys and institutional statements, to describe the situation of the population, in general or of a particular sector, in terms of eating habits and/or the consumption of certain products and their impact on health.

In *El País* this frame occupies the first position, along with effects frame, with a presence in 31% of the published texts; in *El Mundo* and *La Vanguardia* the diagnostic frame is the third most common, with 18% and 28%, respectively.

In the six months of analysis, this type of frame was based on information coming from scientific/medical and/or political/institutional sources. In the first case, the media report the results of a research study, which is usually expressed in statistical terms. Thus, *El País* reported that 68% of European teens drink energy drinks and that half of them combine it with alcohol, provoking tachycardia and others disorders (21/05/2014). In *El Mundo*, a study warns that hypertension can be compared to the AIDS pandemic by the number of people affected, the deaths that it generates and because both are asymptomatic processes (04/02/2014).

In the second case, the texts have a marked political or institutional character and are framed within what is known as food security, i.e. those problems associated to the accessibility and availability of food. This concept would have been marginalised in developed countries, which give greater relevance to food safety, understood as the protection of the consumer through the control of the food production chain (primary production, processing, transportation, distribution to the consumer). In this way, food safety becomes the priority subject.

However, the global economic crisis has led to situations of malnutrition associated with accessibility even in some Spanish homes. A report issued by the OECD in June 2014, on inequality in thirty countries, places Spain in a very bad place. Its authors underline “the increase in detected cases of malnutrition (insufficient intake of food during parts of the day or seasons of the year) and malnutrition” (*La Vanguardia*, 22/06/2014).

The dining service scholarship became news in all the newspaper, since the sudden situations of poverty left many children unassisted, as denounce by schools and NGOs.

Institutions such as the Basque Government, through the Minister of Health, identifies social inequality as the risk factor with greater impact on the health of the Basque people (*El Mundo*, 18/01/2014). The Catalan Ministry of health is cited as he claims that “660 children have health problems related to poverty” (*El País*, 22/01/2014).

The diagnostic frame has mostly a negative tone, as 95% of the cases denounce situations that affect the health of the population. One of the few encouraging diagnoses corresponds to a report of the WHO, which says that Spain has experience a reduction in alcohol consumption, with consequent

benefits for health: “Spain reduces alcohol consumption” (*El Mundo*, 13/05/2014). However, this optimism is curbed by an article published by *La Vanguardia* about the same report –“Spanish people drink more than the average European”– and, if there was any doubt, the nut graph confirms that “there is much to be done” (*La Vanguardia*, 13/05/2014). The diagnostic frame thus paints a picture with negative strokes and not without some confusion.

Faced with the growing malnutrition linked to economic problems, with children as the most vulnerable victims, bad eating habits and their impact in child obesity become recurring themes in the three newspapers. Eating disorders, anorexia, bulimia and orthorexia, were conceived as diseases of a developed, capitalist society where the consumption imperatives and aesthetic canons condition eating habits, especially in young people. The fight against obesity seems to have come to occupy the space reserved until now for tobacco use. Overweight is defined as the new pandemic of the century: “Obesity, the great pandemic of the 21st century” (*La Vanguardia*, 30/05/2014). 19% of the texts make explicit reference to obesity and overweight, and of these 46% are focused on child obesity. In his study on “Childhood obesity in the Spanish press”, Westall pointed out that “it is obvious that the food industry has managed to turn health and welfare into an end in itself and at the same time has contributed to the anti-obesity environment in Spain” (Westall, 2011, p. 227).

Thus, while a part of the population is made aware of the most varied diets to get in shape; Another part of the population seeks protection from the institutions to improve social services and defend their right to food. In both cases, the most vulnerable population sector is children. In March 2014, a report by the Thao Foundation estimated that 28.4% of Spanish children under 12 are overweight or obese. In the six months studied a series of studies and research on this issue is published. An example of this was the study published by *The American Journal of Clinical Nutrition*, which established the relationship between protein intake and child obesity: “babies who take more proteins in milk are twice as obese” (*El País*, 10/06/2014). As expected, Magda Carla, from her column dedicated to nutrition, offers tips to help children avoid overweight: “About slimming plans for children” (*La Vanguardia*, 08/05/2014).

Also taken into account, are the economic factors, which affect food security specially the nutrition of children from the most disadvantaged classes. A report published in January by *Save the children* “warns that problems such as poor nutrition or lack of money to buy clothes or school supplies is a growing reality” (“Recession is affecting children”, in *El Mundo*, 30/01/2014). Childhood obesity is a symptom of economic wealth, but also of poverty in developed countries. This political/economic point of view is gaining increasing strength in the media. The newspapers under analysis publish pieces that provide data and arguments in this sense. Thus, *El País* reported that in France, the prevalence of obesity in adults is four times higher in households with the lowest incomes than in better-off households (*El País*, 15/04/2014).

The same medium published an opinion article written by the wife of the President of United States, Michelle Obama, who addresses the problem of child obesity and advocates for the establishment of measures to help families in need to have healthy and balanced food-intake. But, at the same time, highlights the economic cost of obesity in the mid-term for the USA: “is not a problem that only affects the health of children: also affects the health of our economy. We spend approximately

190,000 million dollars annually in the treatment of diseases related to obesity. Imagine where can reach that figure here 10 or 20 years if we do not begin to act now” (*El País*, 08/06/2014).

Some news that use the recommendation/prevention frame also revolve around this argument, observing the control of nutrition for the prevention of disease and especially those derived from obesity in terms of economic costs to society.

It can be said that obesity is more and more present in the media’s agenda and that it is being introduced with a new approach that, with the help of public, political and health organizations, is gradually permeating society: Obesity is not an individual problem but a social problem. Their economic costs, measured through the health spending to counter problems arising from this “disease” would justify this new interpretive framework.

c) Recommendation/prevention

The recommendation/prevention frame represents 22% of the published pieces. Its presence is very uneven across the three newspapers, since *El Mundo* hardly reaches 5%, while in *La Vanguardia* and *El País* it has a presence of 21% and 31%, respectively.

This approach includes all those texts that advise people on how to prevent certain diseases through healthy eating, or recommend certain diets.

Biomolecular researcher J. M. Mulet was interviewed for a back-page article for *La Vanguardia*. In it, he advises readers to “Listen to science and avoid *ecotimo* while paying and eating” (25/01/2014). In the same newspaper, Magda Carla, in addition to commenting on the effects and nutritional values of certain foods, makes all kinds of recommendations to follow the best diet in cold seasons (“in cold periods it is recommended to increase or at least control the intake of this vitamin”, 16/01/2014) and to lose weight (“try to avoid sauces if you want to lose weight”, 20/02/2014).

In *El País*, prevention is the central theme of an extensive report dedicated to chronic diseases affecting the aging population of Europe (*El País*, 15/04/2014). Among the main risk factors, poor diet and sedentary lifestyle, along with tobacco and alcohol are the most prominent. The political/legislative perspective on this issue is appreciated in the discussion of the European measures and regulations aimed at disease control: “If a disease is preventable, let’s prevent it. Let’s fight against anti-health lobbies”. The same type of argument appears on 20 May 2014, as a response to alarming data on obesity: in the article “The UN warns that poor diet is worse for health than tobacco” (20/05/2014), *El País* recommends, among other measures, to impose a tax on saturated fat.

Once again, obesity, its risks and costs for the public administrations are an inexhaustible source of information. Michael Pollan recommends readers to run away from packaged foods and to cook their own food: “If you choose yourself the ingredients you help to improve the situation” (*El País*, 20/06/2014). The recommendations of this food activist are based on the nutritional components of food.

The informative character of this frame prioritises the neutral tone. As these topics are currently less anchored in today's society, newspapers rely more on opinion articles and interpretive genres, like interviews and feature articles to discuss them. Hence, their reduced presence in *El Mundo*, where these genres are very scarce, and only constitute 21% (8) of all the published texts.

D) Innovation

This frame is used in a minority in of texts in all the newspapers, except in *El Mundo* where it is present in 44% of the texts. In fact, most of the articles that use this frame were published in the "Innovation" supplement of *El Mundo*.

The innovation frame primarily uses a positive tone and the perspectives from two different areas: medical-scientific and business sector.

The first area corresponds to texts that discuss scientific discoveries, which usually have a positive impact on health. *El País* published two texts of this type: one on the "cloning of insulin protective cells by an international research team" (29/04/2014) and another on the discovery of a "mechanism whereby amoebas eat live cells off the intestine", also by "an international team" (*El País*, 10/04/2014).

La Vanguardia also published two pieces with this type of frame, although in both cases they are rather linked to the business world: "Allergychef.es lets you reserve a table for free at allergy-friendly restaurants" (28/04/2014) and "Research to achieve a healthier ham. Experts from the University of Lleida identify a natural genetic mutation that produces pigs with less saturated fat" (04/05/2014).

However, it is in *El Mundo* where this frame acquires true meaning, as it is present in 17 pieces. This high number is explained by the BIOFACH trade fair in Nuremberg, and the food fair, in Barcelona. *El Mundo* covered these events and informed about all the new products in a positive way, highlighting their health benefits. "Healthy" was the most used adjective to accompany to the new patents and to characterise the new foods presented in the trade fair.

Joining the fight against child obesity, Frigo, the ice cream and frozen products division of Unilever Spain, presented a low-calorie ice cream brand. In addition, Estiu, a Mercadona provider, created an ice cream suitable for celiac and lactose intolerant people. The article titled "Overweight and obesity, affecting 44.5% of Spanish children, worry ice cream makers" was published in *El Mundo* (21/04/2014). In the same line, Naturval devised a very low-fat cocoa cream thanks to the incorporation of honey (*El Mundo*, 10/02/2014).

Flitroper removes oil from popcorn and introduces new flavours. "The result is the healthiest popcorn in the market, and they are produced with completely natural ingredients" (22 / 04 / 2014).

The collaboration between research institutes such as Agrasy, the Institute of Sustainable Agriculture of Cordoba, and the food industry, results in commercialisation and use the digestible cereal, known

as Tritordeum. Its many advantages include “its high levels of protein, dietary fibre and lutein, an antioxidant that is beneficial for eye health since it protects the retina” (*El Mundo*, 22/05/2014).

This same frame of innovation, but with a more altruistic character was used in a piece about the super-bananas of Bill Gates, which were “genetically modified so that they would contain enough vitamin A to alleviate the malnutrition of millions of people hit by misery” (*El Mundo*, 29/06/2014).

A striking aspect of the use of this frame is the absence of a critical tone. The food industry uses the growing concern on health and nutrition as a claim to attract potential consumers and the medium reproduces the alleged benefits of these new products without verifying the real advantages for health of such advancements. Thus, for example, Matarromera launched the low-alcohol wine brand Win 5.0 as a response to “the growing demand of consumers who are commitment to health but want to keep the benefits of the original broth” (*El Mundo*, 05/06/2014). The sources of these pieces are the producers of these products or the directors of the production-companies.

e) Risks

Consumer protection is the basis of food safety policy in the EU, as reflected in the *White paper on food safety*, prepared by the European Commission: “The EU must base its food policy in the application of the three components of risk analysis: risk assessment (scientific advice and information analysis), risk management (regulation and control) and risk communication”.

Globalisation and the problems associated to it, which include the impossibility to control the traceability of foods has resulted in various food alerts in recent years, the most recent being the E. coli cucumber crisis (2011) and the horse meat scandal (2013).

Fraud is associated with some of these food alerts, which denote the lack of control by the relevant authorities, but in most cases do not pose any danger to health.

In the analysed period, several articles on fraud were published, but only one of them was taken into account since it was the only one that could lead to a health problem: “Seafood fraud. High percentage of tags that do not reflect the reality forces the maximisation of control” (*El País*, 04 / 02 / 2014). Apart from these contents, the presence of texts that can fit within food risks is very limited, only 5%.

One of the food risks with more press coverage was the so-called Anisakis crisis. This was a local food-related health risk that took place in the Basque Country when the Basque Government, on 8 May, warned of the presence of Anisakis parasites in a high percentage of anchovies from the Cantabrian Sea. After the alarm was set the institutions stepped out with reassuring messages and recommendations to consume safely anchovies that could possible carry the parasite. However, some news published by *El Mundo* in its Basque edition used the risk frame: “Health department warns of a serious outbreak of anisakis” (*El Mundo*, 09/05/2014) and “70 patients with Anisakis since the health alert in the Basque Country” (*El Mundo* (22/06/2014).

La Vanguardia did not paid attention to this food crisis but published other news that involved a direct risk on consumers' health: "Mercury contaminates monkfish and scorpion fish in Menorca" (*La Vanguardia*, 03/01/2014) and "A restaurant with two Michelin stars closes one week because of a virus" (*La Vanguardia*, 03/02/2014).

As we can see, the risk framing is generally used for news events with immediate consequences and therefore its presence is cyclical.

The category "others" includes 2% of the texts related to food and health, whose content was difficult to fit into the previous frame categories.

5. Discussion and conclusions

Based on the analysis of the three newspapers and taking into account the diversity of the object of study, it can be concluded that:

1. Of the 644 texts related to food and published during the first half of 2014 by *El País*, *El Mundo* and *La Vanguardia*, 146, 22.6%, were directly related with health. However, *La Vanguardia* published a remarkably higher number of texts, 78, with respect to the other two newspaper papers, whose percentage differences were not as pronounced. The relationship between the number of texts on food in general and texts on food and health varies about 6 percentage points: *La Vanguardia* with 25.8%, *El País* with 19.5%, and *El Mundo* with 20.1%.
2. All newspapers tend to place texts on food and health in sections linked to the idea of society and life style ("Tendencias", "Vivir", "Vida y Artes", "Ciencia, Sociedad") and, as a second option, in the local information section. It is not common to find these texts in the so-called hard-news sections, such as international, politics, and economy. *El Mundo* is the only newspaper that places most of its texts on food in the thematic supplement called "Innovadores", which focuses on the business world and gives space to news related to the agriculture and food industry.
3. The analysis of the authorship of the texts on food and health has shown the limited journalistic specialisation in this field. In fact, the 156 texts detected in the analysis were written by 52 different authors, which results in an average of 2.8 texts per author, for a period of six months. If we take out the case of the nutrition specialist doctor Magda Carlas, which has a section in *La Vanguardia*, only seven persons have written at least five pieces on food and health.
4. Although, in global terms, the most used sources come from the health and scientific sector, it is striking that 40 texts cite as their source research articles and reports. In these cases, the authors and much less the sponsors of the cited works are not made clear. In this regard, *El Mundo* differs from its rivals, since in its case the largest number of cited sources comes from the food and agriculture sector.

5. The most relevant thematic frames are, in decreasing order and attending the global sample: effects (30%), diagnosis (26%), recommendation/prevention (20%), innovation (14%) and risks (5%).

The effects framing maintains a balanced tone between the positive and negative evaluative character, emphasising both the benefits and dangers to health of certain foods. The most critical texts use the interpretive genre, usually the news article, and during this period, these texts were mostly devoted to debunk the alleged advantages of the infamous Dukan diet.

The diagnostic frame is presented from the medical-scientific and political-institutional perspectives. In both cases, they use reports or research studies usually from the public sector, and their tone is usually negative. The economic crisis is one of the factors most frequently mentioned to explain the malnutrition faced by the most underprivileged sectors of society, especially children.

The diagnostic and prevention frames have an outstanding presence in *La Vanguardia* and *El País*, with 21% and 31%, respectively, but their presence is very low in *El Mundo*. The recommendations and tips often come from nutritionists, food activists and researchers. The figures are reversed when it comes to the innovation frame, where *El Mundo* takes the lead with 44%. In this case, the texts present a scientific or business perspective, showing the advances made in the food industry and the area of research.

The risk frame, only represents 5% of the total, which is logical, since it refers to situations of imminent danger in relation to food. During this period, the anisakis crisis was the highlight.

6. Eating disorders and diets are frequently discussed in all newspapers, but obesity is the most commonly-covered issue in all newspapers. We should remember that 19% of the texts on food and health made explicit reference to obesity and overweight that 46% of them focused on child obesity. Often these texts are related to diseases, specific foods and misleading diets.

Obesity is presented with all types of frames and its coverage is brewing its own frame, one that defines it as a social problem. Obesity is no longer a particular problem or a disease; instead, it is explained as an epidemic, pandemic of the 19th century, according to *La Vanguardia*. Its economic implications in terms of public spending to alleviate the health consequences of this disease has turned it into a problem to be fought from all fronts.

Finally, the results suggest that the development of the journalistic specialisation on food and health issues would result in a better professional practice. Moreover, newspapers should make an effort to disclose clearly the authors and sponsors of the research articles and reports that are often used as sources. A more systematic fact-checking of these research articles and reports would avoid, for example, the publication of contradictory news on the benefits and dangers of a food product.

These last two issues, as well as the change that is occurring in the media treatment of obesity could be the subject of future research works. Other new avenues of research would come from the study of this kind of news from the point of view of readers, analysing the levels of credibility and interest they generate in audiences, as well as the degree of presence of food safety in the opinion sections of the media. Finally, and in order to identify the causes of the limited journalistic specialisation in this

field, it would be relevant to analyse the processes through which newspapers commission their journalists to follow-up these type of issues.

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6. References

- Alzate, T. (2013): “Consejos nutricionales y dietéticos en la prensa española”. *Revista Española de Comunicación en Salud*, 4(1), pp. 17-26.
- Bateson, G. (1972): *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Empistemology*, Nueva York: Ballantine Books.
- Bernabeu-Peiró, A. (2015): “La divulgación radiofónica de la alimentación y la nutrición. El ejemplo de Radio 5 Todo Noticias”. *Revista de Comunicación y Salud*, (5), pp. 36-53.
- Bizer, G. & Petty, R. (2005): “How We Conceptualize Our Attitudes Matters: The Effects of Valence Framing on the Resistance of Political Attitudes”, *Political Psychology*, 26(4), pp. 553–568.
- Borrat, H. (1989): *El periódico, actor político*. Barcelona: Gustavo Gili.
- Caparrós, M. (2015): *El Hambre*. Barcelona: Anagrama.
- Chimeno, S. (2004): “Información sobre salud, sanidad y medicina”. in Fernández del Moral, Javier (coord.): *Periodismo especializado*. Barcelona: Ariel, pp. 432-451.
- Comisión de las Comunidades Europeas (2000): *Libro Blanco sobre Seguridad Alimentaria*, http://ec.europa.eu/dgs/health_consumer/library/pub/pub06_es.pdf.
- Eilders, Ch. & Lüters, Al. (2000): “Research note: Germany at war. Competing framing Strategies in German Public Discourse”. *European Journal of Communication*, 15(3), pp. 415-428.
- Enguix Oliver, S. & Gallardo Paúls, B. (2014): “El encuadre de los temas de salud. Cobertura en prensa escrita del daño cerebral adquirido”. *Ámbitos. Revista Internacional de Comunicación*, (26). <http://ambitoscomunicacion.com/2014/el-encuadre-de-los-temas-de-salud-cobertura-en-prensa-escrita-del-dano-cerebral-adquirido/>.
- Entman, R.M. (1993): “Framing: toward clarification of a fractured paradigm”. *Journal of Communication*, 43(4), pp. 51-58.
- Evans, J., Rich, E. & Davies, B. (2008): *Education, Disordered Eating and Obesity Discourse. Fat*

fabrications. Londres: Routledge.

Fúster, F., Ribes, M.A., Bardón, R., & Marino, E. (2009): “Análisis cuantitativo de las noticias de alimentación en la prensa madrileña en 2006”. *Revista española de documentación científica*, 32(1), pp. 99-115.

García, C. (2015): “La dieta mediterránea en la prensa”. *Mediterráneo Económico*, (27), pp. 307-318.

Goffman, E. (2006). *Frame Analysis. Los marcos de la experiencia*. Madrid: Centro de Investigaciones Sociológicas.

Gracia Arnaiz, M. & Díaz Méndez, C. (2012): “Alimentación, cultura y sociedad: problemáticas e investigación desde las ciencias sociales”. En Cantarero, L. (coord.): *La antropología de la alimentación en España: perspectivas actuales*. Barcelona: UOC, pp. 25-41.

Gruber, B. (2011): *Media Framing of Food Insecurity*. Bates College,
http://www.blakejgruber.com/food_mediaframing.pdf.

Igartua, J.J. et.al. (2007): “El tratamiento informativo de la inmigración en los medios de comunicación españoles. Un análisis de contenido desde la Teoría del Framing”. *Estudios del Mensaje Periodístico*, (13), pp. 91-110.

Kiousis, S. (2004): “Explicating Media Salience: A Factor Analysis of New York Times Issue Coverage During the 2000 U.S. Presidential Election”. *Journal of Communication, International Communication Association*, Nueva Jersey, 54(1), pp. 71–87.

Krippendorff, K. (1990): *Metodología de análisis de contenido. Teoría y Práctica*. Barcelona: Paidós.

Lawrence, R. G. (2004): “Framing obesity the evolution of news discourse on a public health issue”. *The Harvard International Journal of Press/Politics*, 9(3), pp. 56-75.

López Villafranca, P. (2012): “Los encuadres sanitarios en prensa española: El caso de la gripe A y la bacteria E. Coli”. *Revista Internacional de Relaciones Públicas*, 4(II), pp. 221-246.

Marín Murillo, F., Armentia Vizueté, J.I. & Caminos Marcet, J.M. (2015): “De lo global a lo local: el encuadre de la crisis de la carne de caballo en la prensa vasca”. *Communication & Society*, 28(3), pp. 29-50.

Martínez-Carrasco, L., Burgarolas, M., Martínez-Poveda, A. (2004): “Análisis de las tendencias actuales en la alimentación de los españoles: posibilidades de difusión de la dieta mediterránea”. *Estudios Agrosociales y Pesqueros*, (21), pp. 151-164.

Pinzón-Ríos, C.; Ocampo-Villegas, M.; & Gutiérrez-Coba, L. (2015): “Tratamiento periodístico de la Responsabilidad Social Empresarial del sector de alimentos en Colombia”. *Cuadernos.info*, (37), pp. 137-150, doi: 10.7764/cdi.37.686

Plaza, J.F. (2010): “Medios de comunicación, anorexia y bulimia”. *Icono 14*, (8), pp. 62-83.

- Revuelta, G. (2006): “Salud y medios de comunicación en España”. *Gac Sanit*, 20(Supl1), pp. 203-208.
- Revuelta, G. et al. (2004): “Género y salud en la prensa diaria”. *Gac Sanit*, 18(Supl 1), pp. 201-2016.
- Sánchez Castillo, S. (2011): “Encuadres noticiosos de las enfermedades raras en la prensa española”. En Fornieles Alcaraz y Bañón Hernández (coord) *Lenguaje, comunicación y salud*. Madrid: Arcibel Editores, pp. 179-200.
- Sandberg, H. (2007): “A matter of looks: the framing of obesity in four Swedish daily newspapers”. *Communications*, 32(4), pp. 447-472, doi: 10.1515/COMMUN.2007.018
- Tankard, J. (2001): The empirical approach to the study of media framing. En Reese, S.D; Gandy, O.H.; & Grant, A.E. (Eds.). *Framing Public life*. Mahwah, NJ: Lawrence Erlbaum, pp. 95-116.
- Tuchman, G. (1983): *La producción de la noticia*. Barcelona: Gustavo Gili.
- Vreese, C.H. de; Peter, J.; Semetko, H. (2001): “Framing politics at the launch of the euro. A cross-national comparative study of frames in the news”. *Political Communication*, (18), pp. 107-122.
- Westall, D. (2011): “La obesidad infantil en la prensa española”. *Estudios sobre el Mensaje Periodístico*, 17(1), pp. 225-239.

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