

Received: October 2023 Accepted: December 2023

DOI: <https://doi.org/10.58262/ks.v12i1.224>

## Information on the Vaccine for Covid-19 in the World's Newspapers: Comparative Study of the Front Pages of the United Kingdom, France, Argentina, Spain, United States and Brazil

Santiago Tejedor<sup>1</sup>, Laura Cervi<sup>2</sup>, Monica Gracia<sup>3</sup>, Fernanda Tusa<sup>4</sup>

### **Abstract**

*Objective: This research analyzes the front pages of newspapers in 6 countries to study how and how many times the vaccine was reported. Methods: The study focuses on 12 reference newspapers from 6 countries (two per country) and collects around 9,576 informative pieces of information corresponding to the first half of November 2020. The newspapers analyzed are The Times and The Guardian (United Kingdom), Le Monde and Le Figaro (France), La Nación and Clarín (Argentina), El País and El Mundo (Spain), The New York Times and The Washington Post (United States) and Folha de Sao Paulo and Estado (Brazil). Results: results show a predominance of news journalistic genres, while the visual frames that arise from the photographic choice tend to generate a climate of uncertainty. Supranational entities and pharmaceutical companies are the entities that appear to a greater extent. Conclusions: this paper shows how the post-COVID-19 media scenario has repositioned the informative monitoring of health issues and has made new actors visible, focusing on medical staff, researchers and scientists.*

**Keywords:** COVID-19; vaccine, newspaper; daily information press; media, health; comparative analysis; data analysis.

### **1. Introduction**

The global COVID-19 pandemic has spread across the planet with record numbers. In this global health crisis, the media have become, especially during the toughest phases of confinement, key players in informing the public about the spread of the virus. During the quarantine, media consumption experienced a deep growth. Furthermore, the Internet has been decisive in the consumption of messages generated by the media. In this regard, social networks ranked first among the sources most consulted by the audience. According to Twitter, the information about the pandemic and the conversations generated by this topic have produced an increase of 23% in daily active users, reaching 164 million quarterly. The peak in the consumption of news content coincided with the first measures of social distancing, reaching high levels with the different statements of government spokespersons around the world. This set of data is linked to the current crisis in journalism (Cervi 2019), which is also a crisis in the credibility of the audience towards the media. A report by the consulting firm Ipsos Global Advisor on trust in the media in 27 countries, established that citizens are skeptical of

<sup>1</sup> Autonomous University Barcelona, Spain, Email: [santiago.tejedor@uab.cat](mailto:santiago.tejedor@uab.cat), Orcid: <https://orcid.org/0000-0002-5539-9800>

<sup>2</sup> Autonomous University Barcelona, Spain, Email: [laura.cervi@uab.cat](mailto:laura.cervi@uab.cat), Orcid: <https://orcid.org/0000-0002-0376-0609>

<sup>3</sup> European University of Atlantic, Santander, Spain, Email: [monica@funiber.org](mailto:monica@funiber.org), Orcid: <https://orcid.org/0000-0002-8547-9246>

<sup>4</sup> Machala Technical University, Equator, Email: [ftusa@utmachala.edu.ec](mailto:ftusa@utmachala.edu.ec), Orcid: <https://orcid.org/0000-0002-1570-9579>

the information they receive from the media, especially from digital newspapers. In Spain, 41% of those surveyed trust audiovisual media, while 39% prefer traditional media such as the written press. Regarding intentionality, 34% of those surveyed consider that newspapers and magazines have good purposes, compared to 66% who warn that newspapers and web pages have the worst informative intentions (PrNoticias 2019).

This research conceives the front page of a newspaper as a fundamental element that synthesizes and hierarchizes the content that a medium considers daily of greatest importance. The cover is, in short, a privileged space for the construction of public identity (Sunkel 2002).

The study, which was carried out between November 1 and 15, 2020, has tried to answer the following research questions: How have the front pages of the main newspapers covered the subject of the vaccine for COVID-19? What type of journalistic texts have you used to spread this content? What kind of characters and institutions have predominated? What role has photography played in the information about the vaccine for COVID-19 on the covers? It is worth mentioning that the objective of this research work was to analyze, in a comparative way, the existence or not of information on the vaccine for COVID-19 on the front pages of the main newspapers in the United Kingdom, Spain, France, the United States, Argentina and Brazil in November 2020.

## **2. Theoretical Framework**

In 2020, the articles published in all areas of knowledge had a common denominator: COVID-19. In the case of Communication Sciences, the studies by Moreno et al. (2020), Orduña-Malea et al. (2020), Aleixandre-Benavent et al. (2020), Odriozola-Chéné et al. (2020), Castillo-Esparcia et al. (2020), Sales et al. (2020), Ferrer-Sapena et al. (2020) demonstrate how this health crisis, on a global scale, has been a research opportunity for universities around the world. Furthermore, the issue of the coronavirus has improved the dissemination of science, since the scientific community and society demand updated information on the pandemic (Daley 2020).

The analysis of the front pages of printed newspapers has been the subject of recurrent study in the last 50 years. From the classic works of Kayser (1974), Arnold (1984), Evans [1978] [1984], Bogart (1985), El-Mir et al. (1995) until the investigations of López (2001), López (1995), Davara et al. (2004), Cunha da Silva Aires (2006), Burgueño (2008), Núñez-Romero (2009), Canga (1994) different studies have addressed the analysis of the contents of the covers of the written press. Jaraba et al. (2020) have established comparisons between the selection of content on the covers of printed editions and the digital editions of the same media or its projection on social networks such as Twitter. In this vein, Tejedor et al. (2020) have analyzed information on the COVID-19 pandemic in 72 front pages of printed newspapers in Spain and Italy, through a comparative study of the newspapers concluding that media opted for emotional information.

The front page of a newspaper is conceived as the main page and projects its news priorities, while transmitting an editorial position towards current news. In this sense, as Canga et al. (2010) points out, the preparation of the cover is the result of a complex process, due to its informative impact and on sales, which will determine the main showcase of the medium and which will inform its readers of the issues that considered more important. According to Sabés & Verón (2008), there are three series that participate in the process of shaping the front page of a newspaper: the headlines (visual linguistic series), the texts (visual series for linguistics) and the images (visual series not linguistics).

COVID-19 crisis has posed new challenges for journalism. In this regard, the World Health Organization (WHO) has used the term infodemics to refer to the overabundance of information that the coronavirus has introduced and to warn citizens of the risks derived from this excess of information, within which they circulate a lot of hoaxes or rumors. In this context, misinformation has multiplied, with social networks being the main setting where decontextualized content and lies of all kinds and conditions have proliferated (Salaverría et al. 2020).

The infodemic stemming from the COVID-19 crisis has posed new challenges for journalism. The World Health Organization (WHO) has used this term to refer to the overabundance of information that the coronavirus has introduced and to warn citizens of the risks derived from this excess of information, within which a large amount of information circulates. hoaxes or rumors. In the current scenario, the importance of AMI (Informational Media Literacy), which refers to the ability of citizens to access, use, evaluate, decide and generate responsible, ethical and quality content, becomes crucial.

The AMI points to the decisive role of information and the media in the daily life of any citizen. In this sense, it is an essential ingredient to be able to talk about freedom of expression and information. In this regard, the works of Pérez-Tornero & Varis (2010), Tejedor (2010), among others, emphasize the importance of promoting digital literacy that goes beyond the instrumental or technical stage to cover aspects related to the critical use of the media. Communication (Wicke & Bolognesi 2020, Bolsen et al. 2020, Medina et al. 2021, Gjylbegaj 2021, Msughter & Phillips 2020).

### **3. Materials and Methods**

The methodological starting point of this research is the mixed design proposed by Tejedor et al. (2020) where the authors analyzed the information on COVID-19 in 72 covers of printed newspapers in Spain and Italy, through of a comparative study in the most critical months of the pandemic in 2020. Furthermore, the work of Penarrieta, Rodríguez & Ramos (2014) which analyzes the contents of printed elements of a Peruvian newspaper using the mixed method, at a descriptive level.

The authors consider that the research offers an exploratory, descriptive and explanatory diagnosis of how COVID-19 has been reported versus the type of information on the vaccine. This comparison makes it possible to identify important differences in each of these coverages, while at the same time offering elements of interest in terms of the prominence of the literacy average. This methodology, supported by other studies of reference in the field of social sciences, allows us to extrapolate interesting results in a field that, to date, lacks this type of study.

The authors believe it is important to allude to the theory of mediatization (Pérez Tornero 2020) and its synchronic and asynchronous reading of scenarios impacted by the same phenomena at different times. It would not have been possible to carry out a study of 6 countries going through the same moment of the vaccination process because this situation has never existed. The rhythms and slowdowns in this area have prevented it.

From a theoretical perspective, this study is informed by both the agenda setting theory (Mccombs 2005) and framing theory (Reese et al. 2001, Sádaba 2008, D'Angelo 2012) which have served as an argumentative framework to analyze the role of the media and the treatment of information on COVID-19 and vaccination throughout the world (Cervi 2019).

In this research, a total of 168 front pages of the main newspapers United Kingdom, France,

Argentina, Spain, the United States and Brazil (28 for each of them) were analyzed from a matrix made up of 15 variables and 64 categories extracted in an inductive mainly. The study focuses on 12 reference newspapers from the six countries indicated (two per country) and collects around 9,576 informative pieces of information corresponding to the first half of November 2020. The analyzed newspapers are: The Times and The Guardian (United Kingdom United), Le Monde and Le Figaro (France), La Nación and Clarín (Argentina), El País and El Mundo (Spain), The New York Times and The Washington Post (United States), and Folha de Sao Paulo and Estado (Brazil).

The selection of the countries was in terms of impact, respecting geographical difference. In this regards, acknowledging that different media systems may react in different ways (Boczkowski 2004) we have taken into account countries with different media systems and selected the most influential (in terms of reputations and diffusion) conservative leaning and progressist leaning newspaper.

Moreover, it seems relevant to us to assess how it focused (or not) on national and international realities. The work uses a mixed method (qualitative and quantitative) based on content analysis, complemented with direct observation and hemerographic analysis as the main techniques. The first technique focused on the analysis of the different elements that make up the physical design of the cover from the matrix table designed within the framework of the research. On the other hand, the hemerographic analysis served to describe the content of the elements of each of the covers from analysis sheets for texts, headlines and photographs designed after the bibliographic review of studies close to this object of study. The data processing was carried out from a descriptive statistics planning with the SPSS software. The newspapers analyzed, selected according to their importance, scope and trajectory in each country, are the following (see Table 1).

**Table 1.** Newspapers Analyzed.

Newspaper	Country
The New York Times The Washington Post	USA
The Times The Guardian	UK
Le Monde Le Figaro	France
La Nación Clarín	Argentina
El País El Mundo	Spain
Folha de Sao Paulo Estado	Brazil

The analysis table has taken into account the following elements described in Table 2.

**Table 2.** Analysis Parameters Based on [35-41].

Cover pieces	Total number
Pieces about Covid-19	Total number
Type of piece	News, interview, chronicle, report, editorial, opinion article, informative brief, editorial photo, cartoon.
Position on page	Top left, top right, the entire top area, bottom left, bottom right, the entire bottom area, the entire page.
Prevailing information	Data or interpretation.
Information entities	National non-political entities, national political entities, geographical entities, political entities abroad, non-political entities abroad, others.
Characters in the information	Politicians, citizens, health personnel, researcher-scientist, affected-patient, public figures, others.
Type of headline	Informative, expressive or appealing.
Headlines sources	Direct, indirect or partially direct appointment.
Headline verb type	Narrative, weak interpretive, strong interpretive or perlocutory.
Pictures	Number of pictures
Type of picture	Color or black and white
Function	Documentary or artistic

---

Figures in the pictures	Political figures, health personnel, researcher-scientist, affected-patient, citizens, public figures, others.
-------------------------	--

---

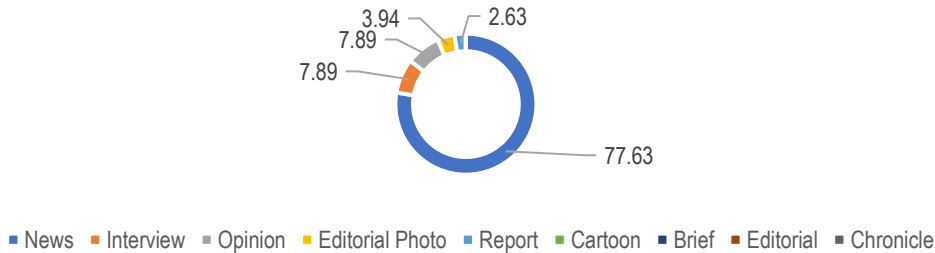
The research takes as its unit of analysis the 992 news items on the front pages of the newspapers and the front pages, conceived as a fundamental element that synthesizes the content offered by the medium and that offers a hierarchy of information. The front page news does not represent the totality of the contents of the medium, but they do present the selection that this one makes against the large amount of existing information. In addition, there is a direct link between the printed cover and the digital version offered by each medium in its digital edition. Cybermedia even present a section entitled 'Covers', 'On the covers' or 'Press review' and a link to the printed version.

The informative excellence of the covers, as pointed out by Cabrera (2000), Marrone (2018), Parra & Álvarez (2004), Pavlik (2005), Salaverría & Díaz Noci (2003) is linked to the separation between information and opinion and to the proximity to social issues. The cover, conceived as a determining factor to attract the attention of readers, is the space that exposes the formal characteristics and content of a medium, being a privileged place where a public identity is built that is recognized by its readers (Hüsemann 2021).

### 3. Results

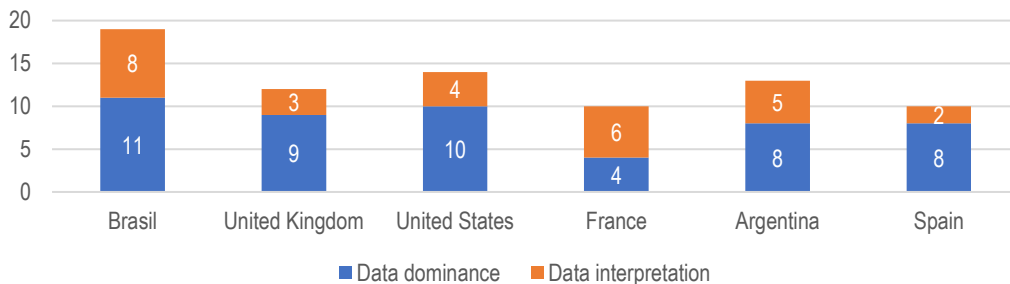
The study carried out on the information on the COVID-19 vaccine in 12 newspapers makes it possible to point out that the number of news items on this subject have had a small presence in the global balance. The United States with 14 stories on the front page (out of a total of 275), Spain with 10 (out of 112) and Brazil with 9 (out of 256) are the most striking cases. The United Kingdom, for its part, only presented one piece of news in the analyzed period (out of a total of 43); while Argentina with 5 (out of 135) and France with 3 (out of 129) denotes a very reduced presence of news about the coronavirus vaccine.

On the other hand, about the total information that appears on the front page about COVID-19, there is a predominance of news information in all countries. The type of journalistic genre denotes the importance given to a topic by a medium and, at the same time, the degree of prominence given to it in the thematic agenda. In 77.63% of cases, information about the vaccine is presented through news, the genre par excellence of informative journalism. In second place, interviews (7.89%) and opinion articles (7.8%) occupy the second position, far from the predominance of the news. For their part, editorial photos (3.94%) and reports (2.63%) are the other journalistic genres used, although to a lesser extent, on the front pages of newspapers to report on the COVID-19 vaccine. It is equally striking that cartoons, briefs, editorials and chronicles are not used in any of the cases. These journalistic genres do not appear on the covers of the newspapers studied. The study detects, therefore, a clear prominence of strictly informative pieces. Interpretive and opinion texts, which would be of great value for addressing the issue, are not used (see Figure 1).



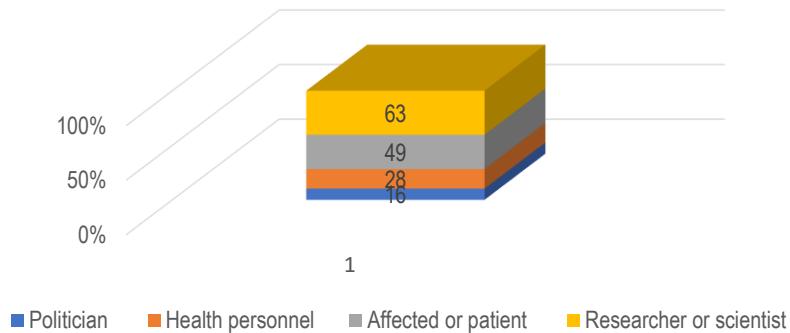
**Figure 1.** Journalistic Genres in the Information.

Another aspect of great interest is the type of information that appears in the pieces that inform about the vaccine. The study has analyzed whether these conferred greater importance on the data or if, on the contrary, they made an interpretation of them, avoiding that the reader had to face alone figures, statistics or other numerical contents. In this sense, countries such as Brazil (11 out of 8), the United States (10 out of 4) or the United Kingdom (9 out of 3), where the impact of COVID-19 has been very high, have a predominance of data information versus those that are based on an interpretation of them. In the case of the United States, the difference of one approach compared to the other is especially relevant to the extent that it exceeds it by more than double. In Argentina (8 out of 5) or Spain (8 out of 2), the data have greater prominence, but on a smaller universe. France is the only country, of the 6 analyzed, where a predominance of news about the vaccine that interprets the data is detected compared to those that limit themselves to offering statistical figures and percentages (4 compared to 6) (see Figure 2).



**Figure 2.** Data Dominance Vs. Data Interpretation at the News.

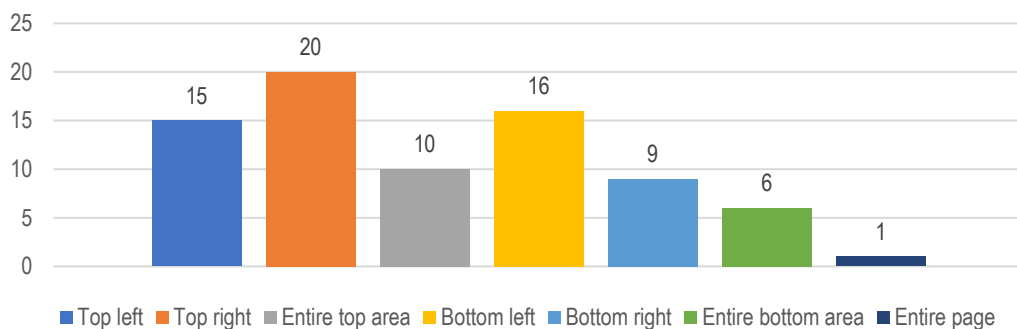
The study has also analyzed the type of characters that appeared in the cover stories that addressed the issue of the coronavirus vaccine. This aspect is crucial to identify what type of characters are linked to the news about the vaccine and, at the same time, to establish whether there were differences between the different countries analyzed. At a general level, the study determines that, in the set of all the information on the coronavirus vaccine, the presence of characters from the public sphere far exceeds anonymous characters. In relation to this and more specifically. At a general level, it is observed that researchers and scientists are the profile of characters that has had a greater role (with a total of 63 pieces) in the set of information of the 6 countries on the vaccine. Then, patients and affected have occupied second place (with 49 appearances), followed by health personnel (with 28) and politicians (with 16) (see Figure 3).



**Figure 3.** Typology of Characters With the Greatest Presence in the Information About the Vaccine.

At a comparative level, the study identifies a trend in the group of countries to confer a greater presence on their covers to researchers and scientists, on the one hand, and to patients and affected people, on the other. In this sense, with the exception of France where health personnel and patients or affected persons are the type of characters with the greatest presence, the rest of the countries coincide in granting scientists and researchers a prominent role. Of these, Brazil is the one with the highest number of appearances of this type of profile (18), followed by the United Kingdom (12) and Argentina (11). In the case of politicians, the United Kingdom (with 6) and Brazil (with 4) are the countries that present a greater presence of characters from the world of politics in their front page news related to the coronavirus. The location of information about the pandemic on the front pages of newspapers is another important element in this global analysis of coronavirus coverage. In this sense, the area in the upper right (with a total of 20 cases) is the one with the greatest prominence. This part has, in the field of cover graphic design, a very prominent importance insofar as it is the space on the first page where the user directs his gaze and attention first. The upper left part, which would be the second in importance, has a total of 15 cases; surpassed only by the lower left (with 16 cases).

Added to this is that in 10 cases the news completely occupies the top of the page. This aspect denotes a significant disparity in the criteria for ranking the information that, although they report the same topic, occupy different positions on the front page. Therefore, it is possible to affirm that the importance given by the media to the information on the coronavirus vaccine has been varying and occupying different areas according to the evolution of the issue and the specificity of the information obtained. Only one case has been detected where the information on the vaccine occupies the entire page, excluding other types of information and concentrating the entire informative focus (see Figure 4).



**Figure 4.** Location of the Information on the Cover.

In a context haunted by misinformation and the infodemic of which the WHO has warned, the study has given special importance to the type of information that appeared in the headlines. The degree is a decisive aspect in the information process due to its ability to establish a hierarchy, on the one hand; and for its role of synthesis on the information presented. Headlines play a key role on the front page of newspapers. At a general level, expressive headlines (with 54 cases) predominate among the 6 countries, followed by informative headlines (with 20 cases). Expressive headlines stand out for their evocative mission about an event already known to the reader and for lacking grammatical structure. Basically, they emphasize words or expressions.

On the other hand, the informative ones allow to identify an action in a singularized way, although grammatically they do not always constitute subject and predicate sentences. They are characterized by stating the subject of the information and the main action of the event (responding, generally, to the questions of 'what' and 'who'). The informative headlines bet on grammatical structures that clearly identify the subject and the action carried out. The appellatives present a single case.

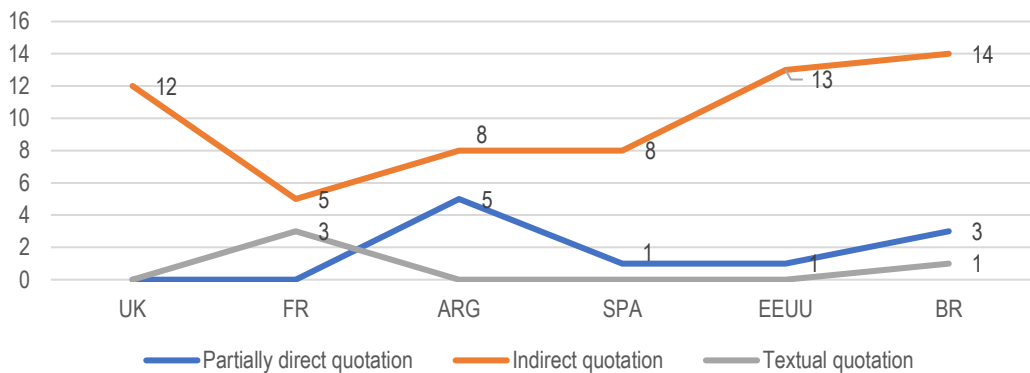
The comparative study between countries of the type of headlines allows us to point out that the United Kingdom, the United States and Spain are the countries where there is a greater difference between the predominance of expressive and informative headlines. Brazil and the United States are the two countries with the highest number of expressive headlines; while Argentina and Brazil are the ones that bet the most on information structures. In the case of appellate headlines, which are characterized by drawing the reader's attention to partially known events, Brazil is the country with the highest number of cases.

Regarding the use of citations, a predominance of headlines with indirect citations is generally detected. This aspect denotes a willingness to attribute the information to a source (person), but in a gentler way than direct citation headlines (which, by the way, are very small with a total of 4 cases). Those of indirect citation, followed by those of partially direct citations (with 10 cases), which seek to emphasize some expression (fragment of a phrase or word) of the issuer, are the most present in the set of newspapers analyzed. At a comparative level, the research allows us to point out that Brazil is the country that most links its information on the COVID-19 vaccine to people (through direct or indirect quotes).

The analysis of the type of verbs of the headlines that covered information about the COVID-19 vaccine has been an element of great interest. The study shows a predominance of interpretive verbs high (threaten, accuse, insult or disqualify), an aspect that denotes a marked



positioning of the media around the announcement of the vaccine. The story verbs (affirm, communicate or declare), are placed in second place and they show an important number of news about the vaccine that try not to position themselves around the aforementioned advertisement. Perlocutionary verbs, which are characterized by trying to reach a reaction by saying something (such as surprising, impacting, convincing or dissuading) without much reduction and only five cases are detected; while the weak interpretative (warn, assure or insist) are testimonial (with a single case). This aspect that invites reflection to the extent that they are verbs close to the type of warning messages typical of a health crisis such as that caused by COVID-19. Brazil stands out for presenting a high number of weak interpretive verbs (a total of 13 cases), although in the group of countries they are the most numerous. The United States is the country with the highest number of story verbs (see Figure 5).



**Figure 5.** Comparative Analysis Between Countries of the Type of Appointment in Degree.

The presence of photography is practically testimonial. Only photographs appear in 12 of the analyzed news items, most of them in color and with a clearly illustrative function without the will to provide additional information to the piece in which they were inserted.

#### 4. Discussion and Conclusions

The limited presence of information about the vaccine during the first fortnight of November 2020 is observed on the front pages of the 12 analyzed newspapers. Most appeal to the use of notes, above editorials and opinion articles. The country that makes the most of the issue is the United Kingdom, which became the first country to approve a vaccine against COVID-19. In fact, in the cover images its protagonists are scientists, health personnel and patients. At a general level, the photographs are of the testimonial type, with an illustrative function.

Regarding the headlines, in the United Kingdom, the United States and Spain expressive and informative headlines predominate. Brazil and the United States concentrate a greater number of expressive headlines, while Argentina and Brazil rely on informative structures. Regarding the use of citations, a predominance of headlines with indirect citations is generally detected, referencing sources such as scientists, ministers of health, health personnel and experts. In the headlines, a predominance of interpretive verbs was observed, an aspect that denotes a marked positioning of the media around the announcement of the vaccine.

In the period of time analyzed, which coincides with the announcement of the efficacy of the Pfizer, Moderna and Oxford / Astrazeneca vaccine, the newspapers sought to sensitize and make

readers aware of the importance of getting vaccinated, demystifying conspiracy theories and pseudoscience positions at risk the project of a planetary immunization against the virus. To do this, they showed the protagonists behind these medical findings and reported in a clear and understandable way how the vaccine works and its side effects within the body. The official spokesmen of the Ministries of Health and Sanitation, as well as scientists and laboratory researchers, were given wide openness. We hope that there is the same commitment of responsibility from the media around the world and that the vaccine is exhaustively reported so that readers can take a critical reflection on the subject and know how to differentiate between reliable sources of information and conspiratorial fallacies that proliferate in times pandemic.

The results of the study are transversal to the new line of research of COVID-19. Thus, we have different scientific publications such as Xu et al. (2020), Piltch-Loeb et al. (2021), Ghazali et al. (2020), Asogwa (2021), which also analyze the journalistic framing of newspaper front pages from an exploratory study and applying computational methods for their analysis.

It is even observed that newspapers leave aside their neutral-objective stance, trying to influence, in a direct way, the citizen perception and mobilizing the reader's action regarding the vaccine issue, as it is identified in the works of Boytchev (2021), Gehrau et al. (2021), Rzymski et al. (2021), Islam et al. (2021).

One of the limitations of the study was the choice of the non-probabilistic statistical sample by convenience of the six countries participating in the research. The authors consider in the future to continue working on the agenda setting research line and to extend the sample of countries by categorizing its analysis at the geographical, linguistic and political levels.

**Author Contributions:** “Conceptualization, Autor1. Methodology, Author 2. Formal analysis, Author 3. Funding acquisition, Author 4. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by European Atlantic University.

**Institutional Review Board Statement:** “Not applicable.”

**Informed Consent Statement:** “Not applicable.”

**Data Availability Statement:** “Not applicable.”

**Acknowledgments:** The authors thank the universities which they are attached in order to give the respective hours of research to develop this proposal.

**Conflicts of Interest:** “The authors declare no conflict of interest.”

## References

- (Asogwa 2021) Asogwa, Chika Euphemia. 2021. Nigerian media coverage of medical progress on the development of COVID-19 vaccine. *Human Vaccines & Immunotherapeutics* 17: 2421-2426.
- (Aleixandre-Benavent et al. 2020) Aleixandre-Benavent, Rafael, Lourdes Castelló-Cogollos, and Juan-Carlos Valderrama-Zurián. 2020. Información y comunicación durante los primeros meses de Covid-19. *Infodemia, desinformación y papel de los profesionales de la información. El profesional de la información (EPI)* 29.
- (Arnold 1984) Arnold, Edmund. 1984. *Diseño total de un periódico*. México: Edamex, pp. 250.
- (Bogart 1985) Bogart, Leo. 1985. *La prensa y su público*. Pamplona: Eunsa, pp. 120.

- (Boychev 2021) Boychev, Hristio. 2021. Why did a German newspaper insist the Oxford AstraZeneca vaccine was ineffective for older people—without evidence? *BMJ: British Medical Journal* 372.
- (Boczkowski 2004) Boczkowski, Pablo. 2004. *Digitizing the news. Innovation in on-line newspapers*. Cambridge: MIT Press, pp. 92.
- (Cervi 2019) Cervi, Laura. 2019. Similar Politicians, Different Media. *Media Treatment of Sex Related Scandals in Italy and the USA*. *Medijske Studije* 10.
- (Cabrera 2000) Cabrera, María Ángeles. 2000. *La prensa on-line. Los periódicos en la www*. Barcelona: CIMS, pp. 23.
- (Bolsen et al. 2020) Bolsen, Toby, Risa Palm, and Justin T. Kingsland. 2020. Framing the origins of COVID-19. *Science communication* 42: 562-585.
- (Burgueño 2008) Burgueño, José Manuel. 2008. *La invención en el periodismo informativo*. Barcelona: Editorial UOC, pp. 25.
- (Canga 1994) Canga, Jesús. 1994. *El diseño periodístico en la prensa diaria*. Barcelona: Bosch Casa Editorial, pp. 82.
- (Canga et al. 2010) Canga, Jesús, César Coca García, Simón Peña Fernández, and Jesús A. Pérez Dasilva. 2010. Terrorismo y política dominan las portadas de la prensa vasca. Análisis de contenido y superficie de las primeras páginas de los diarios autonómicos. *Revista Latina de Comunicación Social* 65: 61-70.
- (Castillo-Esparcia et al. 2020) Castillo-Esparcia, Antonio, Ana-Belén Fernández-Souto, and Iván Puentes-Rivera. 2020. *Comunicación política y Covid-19. Estrategias del Gobierno de España*. *Profesional de la información* 29.
- (Cervi 2019) Cervi, Laura. 2019. Citizen Journalism and User Generated Content in Mainstream Media. *New Dialogic Form of Communication, User-Engagement Technique or Free Labor Exploitation?* *Revista de Comunicação Dialogica* 1:120–141.
- (Cunha da Silva 2006) Cunha da Silva Aires, Eduardo. 2006. *A Estrutura Gráfica das Primeiras Páginas dos Jornais 'O Comércio do Porto', 'O Primeiro de Janeiro' e 'Jornal de Notícias'*. *Entre o Início da Publicação e Final do Século XX*. Gran Oporto: Universidade do Porto, pp. 45.
- (D'Angelo 2012) D'Angelo, Paul. 2012. Studying Framing. *Political Communication with an Integrative Approach*. *American Behavioral Scientist* 56.
- (Daley 2020) Daley, Ben. 2020. COVID-19: una oportunidad para mejorar la difusión del conocimiento científico. *The conversation*.
- (Davara et al. 2004) Davara Javier, Pablo López, Humberto Martínez-Fresneda, Gabriel Sánchez. 2004. *España en Portada*. Madrid: Fragua, pp. 107.
- (El-Mir 1995) El-Mir, Amado José, Fernando Lallana, and Rafael Hernández González. 1995. *Diseño, color y tecnología en prensa*. *Prensa Ibérica*, pp. 291.
- (Evans 1978) Evans, Harold. 1978. *Pictures on a page*. London: Heinemann, pp. 255.
- (Evans 1984) Evans, Harold. 1984. *Diseño y compaginación de la prensa diaria*. México: Editorial Gili, pp. 15.
- (Evans 1984) Evans, Harold. 1984. *La Historia en primera plana: 1900-1984: acontecimientos de nuestro siglo que conmocionaron el mundo*. Madrid: Technipress, pp. 191.
- (Ferrer-Sapena et al. 2020) Toro, Sánchez-Del, María Isabel, J. M. Calabuig, Antonia Ferrer Sapena, and María Fernanda Peset Mancebo. 2020. Trabajar con datos abiertos en tiempos de pandemia: uso de covidDATA-19. *El profesional de la información* 29: 1-13.
- (Ghazali et al. 2020) Ghazali, Wan Norshira Wan Mohd, Shafizan Mohamed, Nur Shakira

- Mohd Nasir, and Mohd Helmi Yusoh. 2020. The coverage of vaccination in the Malay newspapers: an exploratory study. *Asian Journal of Applied Communication (Ajac)* 10.
- (Gehrau et al. 2021) Gehrau, Volker, Sam Fujarski, Hannah Lorenz, Carla Schieb, and Bernd Blöbaum. 2021. The impact of health information exposure and source credibility on COVID-19 vaccination intention in germany. *International Journal of Environmental Research and Public Health* 18: 4678.
- (Gjylbegaj 2021) Gjylbegaj, Viola. 2021. Agenda Setting and Covid-19 in the UAE. *European Journal of Molecular & Clinical Medicine* 7: 11.
- (Hüsemann 2021) Hüsemann, Femke. 2021. A cure that no one wants? A comparative content analysis on how different German and UK newspapers frame the Covid-19 vaccine AZD1222 by Astrazeneca over time. Enschede: University of Twente, pp. 20.
- (Islam et al. 2021) Islam, Md Saiful, Abu-Hena Mostofa Kamal, Alamgir Kabir, Dorothy L. Southern, Sazzad Hossain Khan, SM Murshid Hasan, Tonmoy Sarkar et al. 2021. COVID-19 vaccine rumors and conspiracy theories: The need for cognitive inoculation against misinformation to improve vaccine adherence. *PloS one* 16.
- (Jaraba et al. 2020) Jaraba Molina Gabriel, Santiago Tejedor Calvo, Laura Cervi. 2020. Análisis de las temáticas y tendencias de periodistas españoles en Twitter: contenidos sobre política, cultura, ciencia, comunicación e Internet. *Cuadernos. Info* 47:111-137.
- (Kayser 1974) Kayser, Jacques. 1974. *El diario francés*. Barcelona: ATE, pp. 134.
- (López 1995) López, Manuel. 1995. *Cómo se fabrican las noticias. Fuentes, selección y planificación*. Paidós: Barcelona, pp. 186.
- (López 2001) López, Antonio. *El Titular. Manual de titulación periodística*. Sevilla: Comunicación Social (2001), pp. 58.
- (Marrone 2018) Marrone, Jesús. 2018. *La importancia de la portada en las ventas del diario Marca*. Madrid: Universidad Complutense de Madrid.
- (Mccombs 2005) Mccombs, Maxwell. 2005. Look at Agenda Setting: past, present and future. *Journalism Studies* 6: 4.
- (Medina et al. 2021) Medina, Leslie M., Janette R. Rodriguez, and Philip Joseph D. Sarmiento. 2021. Shaping public opinion through the lens of agenda setting in rolling out COVID-19 vaccination program. *Journal of Public Health* 43: e389-e390.
- (Moreno et al. 2020) Moreno, Ángeles, Cristina Fuentes-Lara, Cristina Navarro. 2020. Covid-19 communication management in Spain: Exploring the effect of information-seeking behavior and message reception in public's evaluation. *El profesional de la información* 29: 4.
- (Msughter 2020) Msughter, Aondover Eric, and Deborah Phillips. 2020. Media framing of Covid-19 pandemic: A study of daily trust and vanguard newspapers in Nigeria. *International Journal of Health, Safety and Environment (IJHSE)* 6: 588-596.
- (Núñez-Romero 2009) Núñez-Romero, Francisco. 2009. *La formación de las secciones de deportes en los diarios de información general españoles antes de 1936. Análisis hemerográfico estructural comparado*. Valencia: Universidad Cardenal Herrera-CEU, pp. 30.
- (Odriozola-Chéné et al. 2020) Odriozola-Chéné, Javier, Javier Díaz Noci, Ana Serrano-Tellería, Rosa Pérez-Arozamena, Laura Pérez-Altible, Juan Linares-Lanzman, Lucía García-Carretero, Luis Mauricio Calvo-Rubio, Manuel Torres-Mendoza, and Adolfo Antón-Bravo. 2020. Inequality in times of pandemics: How online media are starting to treat the economic consequences of the coronavirus crisis. *El Profesional de la información* 29: e290403.
- (Odriozola-Chéné et al. 2020) Orduña-Malea, Enrique, Cristina Font-Julián, and José-Antonio

- Ontalba-Ruipérez. 2020. Covid-19: análisis métrico de vídeos y canales de comunicación en YouTube. *El profesional de la información (EPI)* 29.
- (Parra 2004) Parra, David, Jesús Álvarez. 2004. *Ciberperiodismo*. Madrid: Síntesis, pp. 30.
- (Pavlik 2005) Pavlik, John. 2005. *El periodismo y los nuevos medios de comunicación*. Barcelona: Paidós Ibérica, pp. 88.
- (Penarrieta et al. 2014) Peñarrieta Bedoya, Liceli Gabriela, Luigi Hedrik Rodriguez Rocha, and Katia Ramos Condori. 2014. Análisis de los contenidos de elementos impresos de la portada de diario correo edición región Puno 2012. *Comuni@cción* 5: 59-65.
- (Pérez-Tornero & Varis 2010) Pérez-Tornero, José María, Tapio Varis. 2010. *Media Literacy and New Humanism*. París: UNESCO, pp. 290.
- (Pérez Tornero 2020) Pérez Tornero, José Manuel. 2020. *La gran mediatización*. Barcelona: Editorial UOC, pp. 400.
- (Piltch-Loeb et al. 2021) Piltch-Loeb, Rachael, Elena Savoia, Beth Goldberg, Brian Hughes, Tanner Verhey, Juliette Kayyem, Cynthia Miller-Idriss, and Marcia Testa. 2021. Examining the effect of information channel on COVID-19 vaccine acceptance. *Plos one* 16: e0251095.
- (PrNoticias 2019) PrNoticias. 2019. El 41% de los españoles desconfía de los medios audiovisuales. PrNoticias.
- (Reese et al. 2001) Reese, Stephen D., Oscar H. Gandy Jr, and August E. Grant. 2001. *Framing public life: Perspectives on media and our understanding of the social world*. Mahwah: Lawrence Erlbaum Associates, pp. 7.
- (Rzymiski et al. 2021) Rzymiski, Piotr, Joanna Zeyland, Barbara Poniedzialek, Ilona Malecka, and Jacek Wysocki. 2021. The perception and attitudes toward COVID-19 vaccines: A cross-sectional study in Poland. *Vaccines* 9: 382.
- (Sabés & Verón 2008) Sabés, Fernando, José Juan Verón. 2008. *La eficacia de lo sencillo*. Sevilla: Comunicación Social, pp. 12.
- (Sádaba 2008) Sádaba, Teresa. 2008. *Framing: el encuadre de las noticias. El binomio terrorismo medios*. Buenos Aires: La Crujía, pp. 252.
- (Salaverría et al. 2003) Salaverría, Ramón, Javier Díaz Noci. 2003. *Manual de redacción ciberperiodística*. Barcelona: Ariel, pp. 353.
- (Salaverría et al. 2020) Salaverría, Ramón, Nataly Buslón, Fernando López-Pan, Bienvenido León, Ignacio López-Goñi, and María-Carmen Erviti. 2020. Desinformación en tiempos de pandemia: tipología de los bulos sobre la Covid-19. *El profesional de la información (EPI)* 29.
- (Sales et al. 2020) Sales, Dora, Aurora Cuevas-Cerveró, and José-Antonio Gómez-Hernández. 2020. Perspectives on the information and digital competence of Social Sciences students and faculty before and during lockdown due to Covid-19. *El profesional de la información (EPI)* 29.
- (Sunkel 2002) Sunkel, Guillermo. 2002. *La prensa sensacionalista y los sectores populares*. Bogotá: Editorial Norma, pp. 53.
- (Tejedor 2010) Tejedor, Santiago. 2010. *Ciberperiodismo. Libro de estilo para ciberperiodistas*. Santo Domingo: IITLA, pp. 20.
- (Tejedor et al. 2020) Tejedor, Santiago, Laura Cervi, Fernanda Tusa. 2020. Parola A. Educación en tiempos de pandemia: reflexiones de alumnos y profesores sobre la enseñanza virtual universitaria en España, Italia y Ecuador. *Revista Latina de Comunicación Social* 78:1-21.
- (Tejedor et al. 2020) Tejedor, Santiago, Laura Cervi, Fernanda Tusa, Marta Portales, Margarita Zabolina. 2020. Information on the COVID-19 pandemic in daily newspapers' front pages: case study of Spain and Italy. *International Journal of Environmental Research and*

Public Health 17:17.

- (Wicke & Bolognesi 2020) Wicke, Philipp, and Marianna M. Bolognesi. 2020. Framing COVID-19: How we conceptualize and discuss the pandemic on Twitter. *PloS one* 15: e0240010.
- (Xu et al. 2022) Xu, Zhan, Lauren Ellis, and Mary Laffidy. 2022. News frames and news exposure predicting flu vaccination uptake: evidence from US newspapers, 2011–2018 using computational methods. *Health Communication* 37: 74-82.