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THE INTEREST IN THE ÓMICRON IN SPAIN THROUGH THE *GOOGLE TRENDS* TOOL

EL INTERÉS POR EL ÓMICRON EN ESPAÑA A TRAVÉS DE LA HERRAMIENTA DE *GOOGLE TRENDS*

 **Rafael Barbera Gonzalez.** ESIC University. Spain.
rafael.barbera@esic.university

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RESUMEN

La comunicación de crisis en el ámbito de la salud ha tenido una relevancia sobresaliente no solo en España sino a nivel global, en repetidas ocasiones a lo largo de los años. Esta importancia se ha visto incrementada como consecuencia de la pandemia provocada por el coronavirus o Covid-19, primero, y por la variante del Ómicron, después. El 26 de noviembre de 2021, la Organización Mundial de la Salud (2021) calificó ésta como preocupante porque presentaba "varias mutaciones que podrían afectar a las características del virus, por ejemplo, la facilidad para propagarse o la gravedad de los síntomas que causa". A lo largo de este trabajo se analizan cuáles son las tendencias en España de los términos más utilizados sobre esta variante. Unas palabras que son extraídas de la página web del ministerio de Sanidad de España y que se analizan teniendo como base los datos aparecidos en la herramienta *Google Trends*, que, de manera anónima agrupa datos organizándolos en diferentes categorías. En cuanto al marco temporal elegido se trata del que transcurre desde la fecha citada anteriormente hasta el 8 de febrero de 2022, día en que el Gobierno español decidió eliminar la obligatoriedad de llevar mascarillas en espacios exteriores.

Palabras clave: Medios de Comunicación, Covid-19, Ómicron, *Google Trends*, España, Mascarilla, Variante, Vacuna, Inmunidad.

ABSTRACT

Crisis communication in the field of health has had an outstanding relevance, not only in Spain but globally, repeatedly over the years. This importance has been increased as a result of the pandemic caused by the coronavirus or Covid-19, first, and by the Omicron variant, later. On November 26, 2021, the World Health Organization (2021) described it as worrying because it presented "several mutations

that could affect the characteristics of the virus, for example, the ease of spreading or the severity of the symptoms it causes". Throughout this work, the trends in Spain of the most used terms on this variant are analyzed. Some words are extracted from the website of the Ministry of Health of Spain and are analyzed based on the data that appears in the *Google Trends* tool, which anonymously groups data organizing them into different categories. As for the time frame chosen, it runs from the date mentioned above until February 8, 2022, the day on which the Spanish Government decided to eliminate the obligation to wear masks in outdoor spaces.

Keywords: Media, Covid-19, Omicron, *Google Trends*, Spain, Face Mask, Variant, Vaccine, Immunity.

O INTERESSE NO ÓMICRON NA ESPANHA ATRAVÉS DA FERRAMENTA GOOGLE TRENDS

RESUMO

A comunicação de crise no campo da saúde teve uma relevância destacada não apenas na Espanha, mas globalmente, em repetidos momentos ao longo dos anos. Essa importância aumentou como resultado da pandemia causada pelo coronavírus ou Covid-19, primeiro, e pela variante Omicron, posteriormente. Em 26 de novembro de 2021, a Organização Mundial da Saúde (2021) descreveu-o como preocupante porque apresentava "várias mutações que poderiam afetar as características do vírus, por exemplo, a facilidade de propagação ou a gravidade dos sintomas que causa". Ao longo deste trabalho são analisadas as tendências em Espanha dos termos mais utilizados nesta variante. Algumas palavras que são extraídas do site do Ministério da Saúde da Espanha e que são analisadas com base nos dados que aparecem na ferramenta Google Trends, que agrupa anonimamente os dados organizando-os em diferentes categorias. Quanto ao prazo escolhido, é o referente a data acima mencionada até 8 de fevereiro de 2022, dia em que o Governo espanhol decidiu eliminar a obrigatoriedade do uso de máscaras em espaços exteriores.

Palavras chave: Mídia, Covid-19, Omicron, Google Trends, Espanha, Máscara, Variante, Vacina, Imunidade.

Translation by **Paula González** (Universidad Católica Andrés Bello, Venezuela)

1. INTRODUCTION

On November 26th, 2021, the World Health Organization and the European Center for Disease Prevention and Control declared Omicron as a variant of concern since the COVID-19 pandemic emerged.

Since then, numerous countries have reported cases and outbreaks due to the new variant, some of them highlighting a very rapid increase in the percentage of cases due to Omicron. In Spain, exponential growth in the proportion of Omicron versus Delta was also detected by PCR screening (Ministry of Health, 2021).

Early studies indicated a greater immune escape capacity than that found against Delta. Preliminary data suggested that the Omicron variant would not cause more severe disease in adults and that the vaccine would further reduce the likelihood of severe illness, hospitalization, and death.

Due to the epidemiological context and the expansion of Omicron, it was recommended to continue increasing the percentages of vaccination coverage and the administration of booster doses in target populations, besides maintaining and emphasizing compliance with non-pharmacological control measures. Likewise, it was advised to reduce the number and duration of contacts and to establish limits on the number of participants in public and social events.

2. OBJECTIVES

The arrival of Omicron served for citizens to strengthen the terminology learned during the COVID-19 pandemic. Concepts such as 'antigen', 'vaccine', 'PCR', 'variant', or 'incidence' became, among many others, a common language for all.

In this work, the main objective is to explore what has been the trend of the ten most used words in Spain since the appearance of Omicron. The starting point is the date on which the WHO stated that this variant would be highly contagious and the end of the analysis is the date on which the Spanish government decided to withdraw the mandatory use of face masks outdoors.

Along with this general objective, the following stand out as specific objectives:

1. Classify and order those words through *Google Trends*.
2. Analyze these trends with a criterion such as dates.

3. METHODOLOGY

The ten most used words have been selected based on the websites of both the World Health Organization and the Spanish Ministry of Health. Both organizations are regular sources used by different audiences, that is, experts, the media, researchers, the general public, etc.

After its selection, its trend in Spain is analyzed through *Google Trends*, "a free access tool that reports the volume of searches carried out by users from all over the world to show how frequently a term is searched for and in what places" (Bojo Canales *et al.*, 2021, p. 2).

Regarding the period in which the research is carried out, two dates have been taken as the beginning and the end. The first, was November 26th, 2021, the date on which the WHO declared Omicron as a variant of concern. The second, was February 8th, 2022, the date on which the Council of Ministers approves Royal Decree 115/2022, "which modifies the mandatory use of face masks during the health crisis caused by COVID-19 " (BOE, 2022).

Likewise, a *codebook has been prepared* that follows criteria such as the dates

chosen or the words found. And content analysis has been used as a fundamental technique, which is

the set of communication analysis techniques aimed at obtaining indicators (quantitative or not) through systematic and objective procedures to describe the content of the messages, allowing the inference of knowledge related to the conditions of production/reception (social context) of these messages. (Bardin, 1996)

Google Trends has been chosen as the measurement tool because it offers several features that are suitable for this work. Among them, it stands out that *Google Trends'* time series are standardized in an index that "represents the popularity of search terms regarding the total number of searches carried out in a certain geographical area and in a specified time interval" (Redondo, 2013). For these reasons, *Google Trends* has been preferred over other tools such as *Ubersuggest*, for example.

4. THEORETICAL FRAMEWORK

4.1 Crisis communication.

This is a subject that has doctrinal work besides having many fields in which it can be applied: economy, politics, strategy, health, etc. In any of its possible developments, Coombs points out that three premises must be taken into account by those who manage a crisis: "(1) timing, being the first to report the crisis is beneficial to the organization; (2) victim focus, emphasizing the victim in public crisis messages, and (3) misinformation, the need to aggressively fight inaccurate information" (Coombs, 2014, p. 1).

To deal with crisis communication from a strategic point of view, there have been many approaches used in recent times, although we must refer to these communication theories:

- Benoit's Image Repair Theory
- Weiner's Attribution Theory, together with Coombs and Holladay's Situational Crisis Communication Theory (SCCT), and the
- Framing Theory, by McCombs and Shaw (Zurro *et al.*, 2021, p. 4).

In the first case, Benoit (1995, p. 72) refers to the fact that the key element "is not whether the actor caused the damage, but whether the relevant audience believes the actor to be the source of the reprehensible act."

In the second case, Coombs refers to four types of crises in his work Situational Crisis Communication, based on the Attribution Theory, that is, "in a framework of external agents, users, affected and unaffected, tend to let themselves be guided by emotional guidelines when attributing responsibility for a situation or crisis" (García and Smolak-Lozano, 2013, p. 56).

And, in the third case, the framing theory is used in the field of crisis communication. As Rodelo (2021, p. 93) explains, relying on other authors, "research has demonstrated the effects of various frames on how people process information about public issues".

4.2 Communication of the Omicron health crisis

Some of the meanings of the term crisis that may be useful in the case of Omicron can be found in the Dictionary of the Spanish Language: "profound change with important consequences in a process or a situation, or in the way in which they are appreciated" or "abrupt change in the course of a disease, either to improve or to worsen the patient" (RAE, 2022).

We can frame the health crisis caused by COVID-19 in the first, to the extent that the change caused had very relevant consequences. And in the second, we can do the same with the Omicron crisis, which brought about a sudden change in the course of the disease, in such a way that it became the most invasive wave of all known until then.

In the second case, it is also necessary to assess how the different audiences perceived the new reality after so many months of negative news about the health crisis. Hence the responsibility of the media when reporting on any aspect related to this situation. "In this age of socially mediated communication, audiences determine the relevance, interest, and credibility of the information they receive" (Utz *et al.*, 2013). It is true that, despite the messages received, many citizens did not show the same concern as in the initial months of the pandemic.

One fact that should be highlighted in a crisis communication of these characteristics is that of assuming a leadership role in exposing the messages to different audiences. In this case, the one that did it from the beginning was the WHO itself and thus, besides reminding the population of the benefits of applying social and public health measures, it encouraged countries to follow a series of instructions:

- 1.- Intensify surveillance and sequencing activities to better understand the variants of SARS-CoV-2 in circulation.
- 2.- Submit the complete genome sequences and related metadata to a publicly available database, such as GISAID.
- 3.- Notify the WHO of the cases or conglomerates of cases of infection by the variants of concern, through the mechanism of the International Health Regulations.
- 4.- If sufficient capacity is available, and in coordination with the international community, carry out field studies and laboratory analyses to better understand the effects of the worrying variants on the epidemiological characteristics of COVID-19, the severity of the symptoms they produce, the efficacy of social and public health measures, diagnostic methods, the immune response, neutralization by antibodies, and other pertinent issues. (WHO, 2021)

5. RESULTS

5.1 Omicron

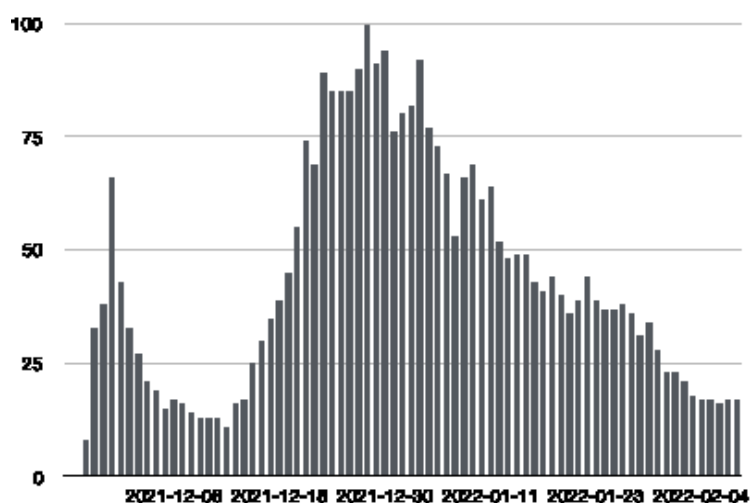
Unlike in the case of COVID-19, the name of Omicron by the media was uniform. The reference to this variant was similar since the WHO reported its appearance. This Organization took care to explain its evolution: "the B.1.1.529 variant presents a large number of mutations, some of which are worrying. Initial evidence indicates that the risk of re-infection with this variant is greater than with other variants of concern" (WHO, 2021).

Regarding the main characteristics of this variant, it was noted that:

Compared with infected patients with either Alpha or Delta variants in our health care system, Omicron patients were significantly younger, had significantly increased vaccine breakthrough rates, and were significantly less likely to be hospitalized. Omicron patients required less intense respiratory support and had a shorter length of hospital stay, consistent with on average decreased disease severity. (Christensen *et al.*, 2022, p. 642)

Figure 1.

Data on the word 'Omicron' obtained from Google Trends during the analyzed period



Source: own elaboration.

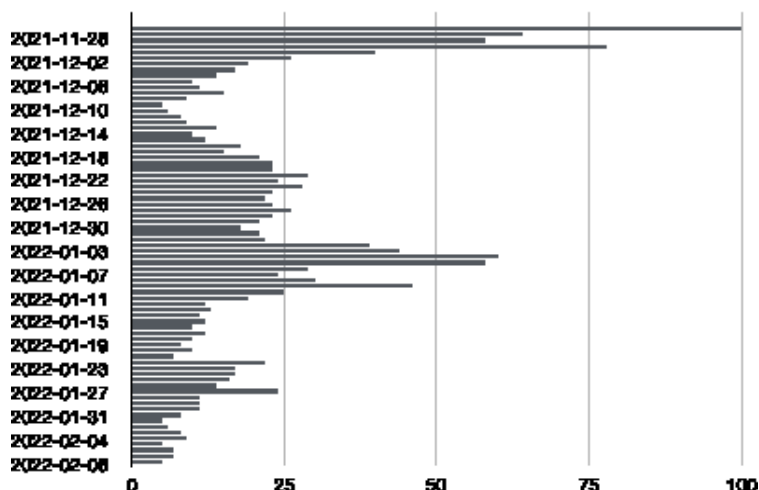
As can be seen in figure 1, in Spain, the search for the term 'Omicron', after a few days of interest, drops until the Christmas period approaches. In fact, from December 23rd to January 5th, the trend does not drop below 70, reaching the highest peak (100) on December 28th. These data show the concern of the population about the high rate of contagion on those dates. Once Christmas is over, the decrease is gradual until reaching a trend of 17 in the last days analyzed in this work.

5.2 Variant

When genetic sequencing or analysis of a virus is carried out, based on samples taken in different regions of the world, "scientists identify certain characteristics by which these mutations can be grouped into variants" (Sánchez, 2021). This explains the meaning of the term 'variant', which is sometimes confused with 'strain' in the media. And this error occurs with all the variants that have appeared so far.

Figure 2.

Data on the word 'Variant' obtained from Google Trends in the period analyzed



Source: Own elaboration

Figure 2 shows that the search for this term starts from a trend of 100 on the first day of analysis to later go down with some moments of a certain rebound. The novelty in the appearance of this variant attracted the attention of the media and their respective audiences.

The main rebound occurs in the first days of 2022 as a result of the Christmas period in which interest in the Omicron variant rose among Spaniards.

5.3 Face mask

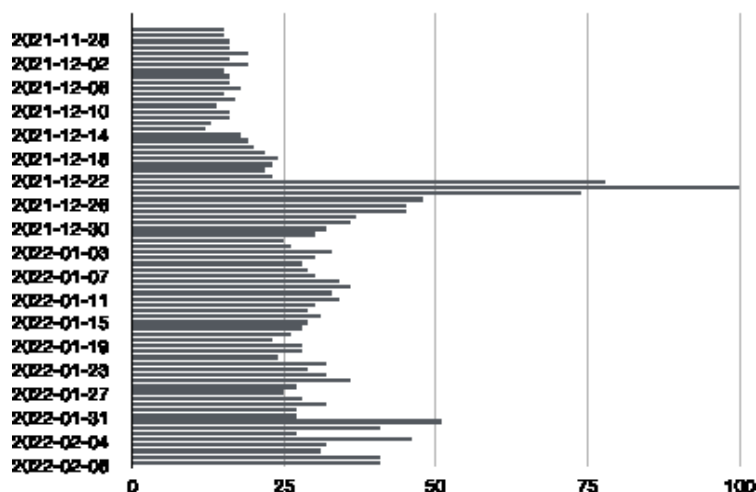
It was the surgeon Mikulic who, in 1897, at the university hospital in Breslau, forced all his collaborators to put charcoal in their mouths during operations; These, when speaking, logically spread drops of saliva mixed with charcoal and when they splashed, they impregnated the patients' bodies and other places in the operating room with black. Hence, he launched the hypothesis of wearing face masks (Lozano, 2021, p. 158).

The face masks, in the pandemic that we analyze in this text, soon became an element of protection and limitation of the spread of the coronavirus infection. "We can differentiate various types of face masks (surgical, self-filtering, hygienic, etc.), each of them having a different consideration in terms of product type, regulatory requirements, and protection they offer us" (Márquez-Peiró *et al* 2020).

The use of face masks was also the subject of political debate, hence Royal Decree-Law 30/2021, of December 23rd, which adopted urgent prevention and containment measures to deal with the health crisis caused by COVID-19, indicated that one of the measures to control transmission was "the extension of the correct use of face masks by citizens" (BOE, 2021).

Figure 3.

Data on the word 'Face mask' obtained from Google Trends in the period analyzed



Source: Own elaboration.

According to what is indicated in Figure 3, the appearance of this term was constant, although not very relevant in its early days. With the publication of the aforementioned Royal Decree, searches increased, reaching trend 100 on December 23rd.

As of that date, searches decreased again, achieving a very uniform trend, except for a few days that saw how the interest of the Spaniards picked up.

5.4 PCR

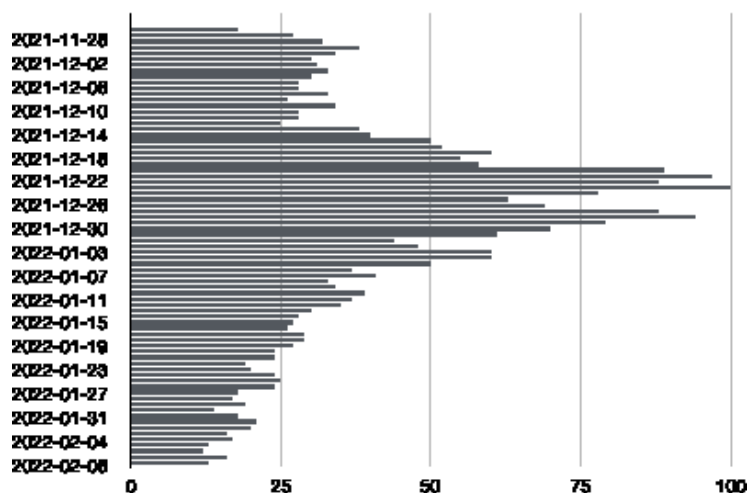
The acronym 'PCR' has become, during the COVID-19 pandemic and its successive variants, a name known and used by almost the entire global population.

The PCR test (*Polymerase Chain Reaction*) is a technique developed in the 80s, which

consists of specifically replicating the genetic material extracted from a patient until millions or billions of copies are obtained; that is until sufficient quantity is obtained to analyze it and so that the result of that analysis has a high degree of reliability. (CSIC, 2020)

Figure 4.

Data on the word 'PCR' obtained from Google Trends in the period analyzed



Source: Own elaboration.

The evolution of the search for this term is similar in the first and last days analyzed in this work, although in the second there is a greater decrease. However, they do reach very notable data on the dates close to Christmas. Between December 20th and 28th, the trend shoots up because they were days of family reunions, and in this period, the 23rd stands out with a trend of 100.

5.5 Antigen

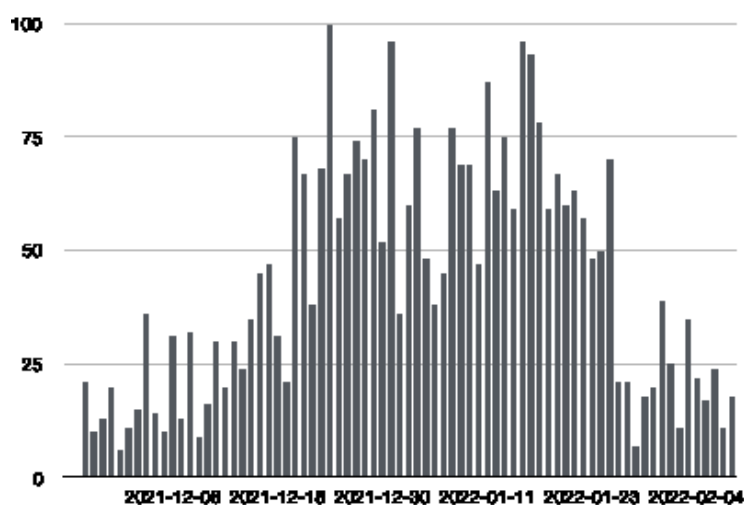
With the appearance of the Omicron variant, the use of antigen tests was activated among the population to find out if the person could be infected. According to the Spanish Agency for Medicines and Health Products (2022), antigen tests serve

to detect an active infection, since they identify the presence of virus proteins... A positive result means that the virus is present and there is probably an ongoing infection. It should be done within the first 7 days of infection when the viral load is at its highest.

It was shown to be an effective method, although the experts insisted that the way of carrying out this test should be adequate. Therefore, the moment of taking the sample and repeating the test was key (Izquierdo, 2021).

Figure 5.

Data on the word 'Antigen' obtained from Google Trends during the analyzed period



Source: Own elaboration.

Similar to what happened with 'PCR', the search for the word antigen was similar in the first and last days analyzed. The first abrupt rise was on December 15th, although the 23rd of that same month was when relevant data was reached (94). The maximum was achieved on December 31st (100) given the interest of the population in knowing their situation before the New Year's Eve celebration. From this day, the curve gradually and steadily descended.

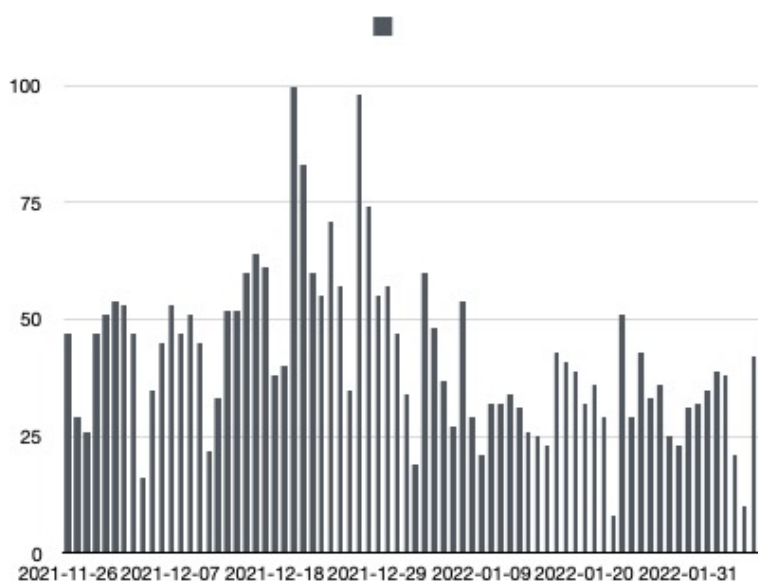
5.6 Cumulative incidence

The cumulative incidence reflects the expansion of a disease in a given time and population. With COVID-19, it has become "one of the markers that determined political decisions" (Medical Writing, 2022). For its calculation, "the number of cases in a period is divided by the number of people who are free of the disease at the beginning of the period" (Instituto Carlos III, 2020). The sample chosen in the case of daily monitoring of COVID-19 is 100,000 inhabitants.

Furthermore, as has been verified in the declarations of the different Spanish health authorities, the period chosen was 14 days, while the cumulative incidence at 7 days advanced the trend.

Figure 6.

Data of the words 'Cumulative incidence' obtained from Google Trends during the analyzed period.



Source: Own elaboration.

The expression 'cumulative incidence' was searched by the different audiences every day of the analyzed period. The constant references to these words made by the health authorities were echoed in the media. The highest peaks were on December 20th and 27th (with trends of 100 and 98, respectively), dates that coincided with the proximity of the Christmas celebrations.

5.7 Vaccine

One of the most controversial aspects of everything that COVID-19 has meant is related to the vaccine. And it has been for various reasons, although it should be noted the resistance of those who do not believe in its effectiveness, besides the difficulty in finding out which of those provided by the different laboratories is the one that offers the best results.

The WHO launched a Technical Advisory Group on the composition of vaccines against COVID-19 to study and assess the consequences of the appearance of variants of concern and their effects on the efficacy of vaccines (WHO, 2022).

The first studies showed signs of optimism and emphasized the need for a new dose of the vaccine. "Total antibody increase after the third dose of the vaccine in older people, strengthening immunity" (Medical Gazette, 2022).

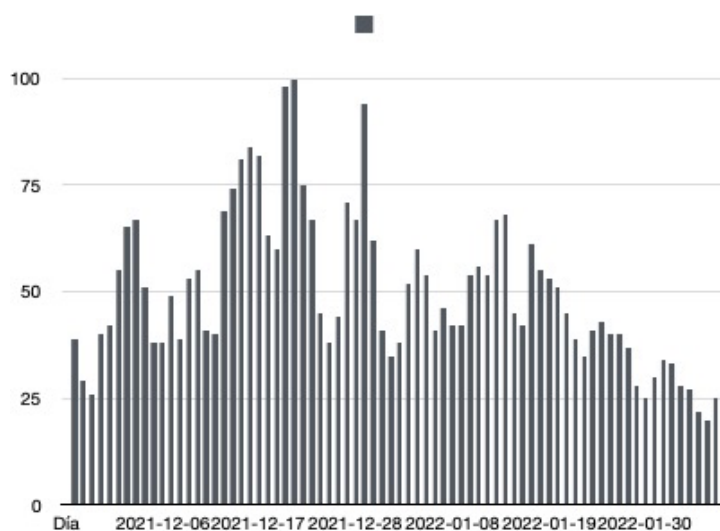
However, some wonder if the population should be repeatedly vaccinated:

Journalism has to do something more than transmit live the number of cases, hospitalized and deceased, and, above all, something more than communicate what politicians want people to be told. Should we keep repeatedly

vaccinating the population? In this, Omicron also represents a pandemic change. Its lower intrinsic virulence forces us to rethink the benefit/risk balance of booster vaccination in relatively young and correctly vaccinated healthy subjects (Simó, 2022, p. 1).

Figure 7.

Data for the word 'Vaccine' obtained from Google Trends during the analyzed period.



Source: Own elaboration.

Vaccine is one of the words that maintain a greater regularity as far as the search in *Google Trends* is concerned. The controversy surrounding its use justifies this situation. It never goes below a trend of 20 and it is in the days before Christmas Eve when it reflects higher figures. One fact that is verified in Figure 7 is that, as the days and weeks go by, the interest in searching for this term decreases.

5.8 Booster dose

The Spanish Ministry of Health considered the risk of dissemination of Omicron in Spain to be very high. Therefore, it indicated that: "due to the current epidemiological context and the expansion of the Omicron variant, it is recommended to continue increasing the percentages of vaccination coverage and the administration of booster doses in target populations" (Ministry of Health, 2021).

Hence, a booster dose began to be talked about as "an additional injection intended for the general population whose immunity tends to disappear between five and six months after complete vaccination" (The Conversation, 2022).

Although this booster dose, like the first doses, was the subject of controversy by those who were against vaccines, some studies demonstrated its effectiveness. For example, in the case of BNT162b2 (Pfizer BioNTech), several authors concluded that: "participants who received a booster at least 5 months after the second dose of

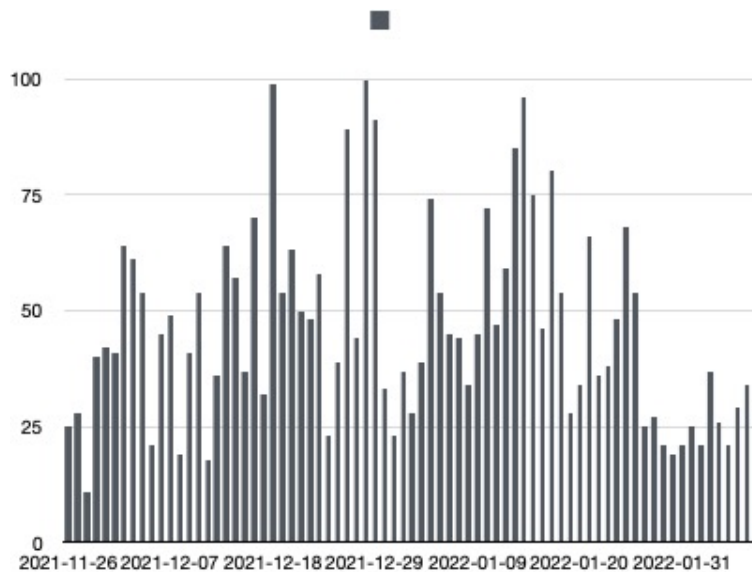
BNT162b2 had 90% lower mortality due to Covid-19 than participants who did not receive a booster" (Arbel *et al.*, 2021).

However, some scientists show their doubts:

The authorization of the FDA (Food and Drugs Administration) allows anyone over 50 years of age to receive a second booster dose. But experts note that the little research done so far only recommends the fourth injection for those over 65 or those with underlying conditions that put them at high risk. (Mandavilli, 2022)

Figure 8.

Data on the words 'Booster dose' obtained from Google Trends during the analyzed period



Source: Own elaboration.

Figure 8 shows saw teeth that have to do with the interest of the different audiences in the need, or not, of a third dose. The data on the vaccines and these doses are matched, to the extent that there is a direct relationship between the two.

Once again, we observe how at the end of 2021, interest in getting this dose grows, and the fact that it disappears as the population was getting it is also highlighted.

5.9 Immunity

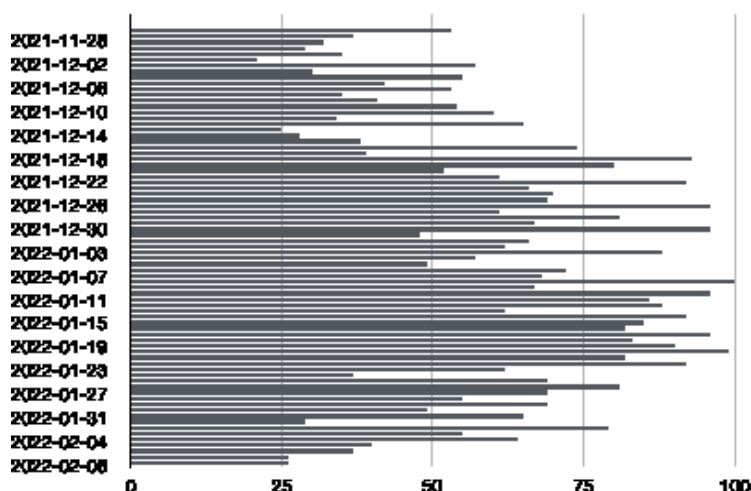
One of the main concerns among the different audiences was to know to what extent the fact of being vaccinated could make them immune to the new Omicron variant. The first studies pointed to pessimism: "Omicron's success in southern Africa might be due largely to its capacity to infect people who recovered from COVID-19 caused by Delta and other variants, as well as those who've been vaccinated" (Callaway and Ledford, 2021, p. 198).

Other authors such as Orellana-Centeno and Guerrero (2022, p. 29) influenced this prognosis by stating that "through mutation and adaptation, viral variants can effectively evade host immunity, which leads to prolonged infection and the spread of the virus to other people".

In any case, the passage of time will reveal some unknowns in this regard. "For this, it would be very important to follow the vaccinated and check if they suffer from COVID-19 infections and sequence them in their case" (Picazo, 2021:591).

Figure 9.

Data on the word 'Immunity' obtained from Google Trends during the analyzed period



Source: Own elaboration.

'Immunity' is another of the terms that, during the analyzed period, was searched for every day. Without a doubt, the possibility of receiving a third dose of the vaccine or obtaining self-diagnostic tests made the public interested in knowing to what extent they could be immune.

5.10 Influenza

This word "is well formed, just like the word derived from it, flu" (Fundeu, 2022). Also, the fact that it is used with quotes

It is not objectionable if you want to indicate the novelty of the words or their figurative meaning since it does not refer to turning COVID into the flu, but to carrying out sentinel surveillance of COVID similar to that done for the flu.

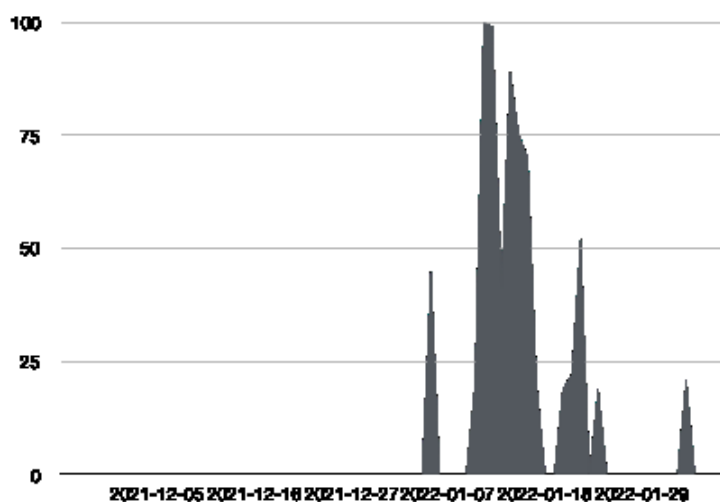
The idea of this term is to treat the situation as endemic. However, various organizations, such as the European Commission, are more cautious in their forecasts, although it is to be hoped that with the acceleration of vaccination a better scenario can be reached (Hernández, 2022).

The debate has moved to the experts. While some consider that a situation will be reached in which the virus will be circulating and people at risk will have to be taken

care of, accepting that the average person will be fine, others affirm that the pandemic cannot be ended by turning the virus into endemic in one country while the rest of the world grapples with the pandemic (BBC, 2022).

Figure 10.

Data on the word 'influenza' obtained from Google Trends during the analyzed period



Source: Own elaboration.

During the analyzed period, the word 'influenza' had an impact on *Google Trends* on January 5th, 2022 for the first time. Until then it was not sought by the audiences. A few days later, it was tracked again achieving a 100 trend on the 12th of the same month. Since then, the search process for this term has been very irregular.

6. CONCLUSIONS

This work allows us to confirm that, during the appearance and evolution of Omicron, the different affected publics (experts, the media, the general population) have been significantly interested in searching for some of the most common terms. Words that have become common language given the repetition in their use. Practically no one is oblivious to a vocabulary that, at first, was technical, and that, later, has become colloquial.

Secondly, trend 100 has been reached by all the terms analyzed in *Google Trends*, which indicates the notoriety pointed out in the first conclusion. At some point in the period analyzed, the public has searched for one of these words. In most cases, this trend has been very close to repeating itself on some other occasion and the dates on which 100 have been reached have been related to the Christmas period.

Third, the term 'influenza' is the only one that was not searched for every day analyzed, given its novelty during the pandemic. It was used when, given the evolution of the cases, the authorities decided to turn the disease into a common one. By not doing it from the first moment, its appearance in the analysis is later.

And, in fourth place, in terms of trends, the words that reach a lower average, besides, logically, 'influenza', with 9.5, are 'variant' and 'face mask', with 21.6 and 29.3, respectively. In a medium range, with less than 50, we find, 'PCR', 38.9; 'cumulative incidence', 42; 'antigen', 43.5; 'booster dose', 45.9, and 'vaccine', 49.5. The word 'immunity', for its part, is the one that achieves a higher average trend with 61.9. And, finally, it stands out that 'Omicron', being the main idea of the work, stays at 44.2.

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AUTHOR:

Rafael Barberá González

He holds a Ph.D. in Journalism from the Universidad San Pablo-CEU, he has a degree in Journalism from this university, and a degree in Law from the Universidad Complutense de Madrid. Associate professor at the Faculty of Information Sciences of the UCM and Esic University, full-time. His lines of research focus on political communication and crisis communication management in the field of health. He has published several scientific articles and book chapters on these subjects.

Orcid ID: <https://orcid.org/0000-0002-4389-9576>

Google Scholar: <https://scholar.google.es/citations?user=PyKDhD0AAAAJ&hl=es>

Academia.edu: <https://ucm.academia.edu/RafaelBarberá>