Cartoons of mental illness after COVID-19: A decalogue of good practices for a non-stigmatising visual representation

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ᴱᴺᴳ **Abstract:** The mental health of the population has deteriorated as a result of the COVID-19 pandemic. It has been shown that people with mental illnesses face discrimination and stigma. In this context, communication is an essential tool to make these illnesses more visible and, in particular, cartoons can play an important role. In this paper we analyze 317 cartoons dealing with mental health. We compared the cartoons published before and during the pandemic to see if there were any changes, if stigma was reduced and if journalistic good practice guidelines were applied to the cartoons. The data suggest that more attention has been paid to mental health issues during the pandemic, although many stereotypes and bad practices still dominate the cartoons. Furthermore, graphic humor proves its value as a tool for analyzing current affairs and can also be used to raise awareness of mental health issues.
Keywords: COVID-19; coronavirus; mental health; mental illness; cartoons; graphic humor; communication; infodemic; suicide; stigma.

ᴱˢ Viñetas sobre la enfermedad mental tras la COVID-19: Un decálogo de buenas prácticas para una representación visual no estigmatizadora

Resumen: La salud mental de la población se ha agravado como consecuencia de la pandemia de COVID-19. Se ha demostrado que las personas con enfermedades mentales se enfrentan a la discriminación y el estigma. En este contexto, la comunicación es una herramienta esencial para hacer visibles estas enfermedades y, concretamente, las viñetas pueden desempeñar un papel relevante. Este artículo analiza 317 viñetas sobre salud mental. El estudio compara las viñetas publicadas antes y durante la pandemia para ver si hubo cambios, si se redujo el estigma y si se aplicaron directrices de buenas prácticas periodísticas a las viñetas. Los datos sugieren que se ha prestado más atención a los problemas de salud mental durante la pandemia, aunque muchos estereotipos y malas prácticas siguen predominando en las viñetas. En resumen, el humor gráfico demuestra su valor como herramienta de análisis de la actualidad y también como elemento para concienciar sobre salud mental.
Palabras clave: COVID-19; coronavirus; salud mental; enfermedad mental; viñetas; humor gráfico; comunicación; infodemia; suicidio; estigma.

1. Introduction

1.1. Mental health and the pandemic

The COVID-19 crisis has allowed us to understand and assimilate the meaning of the word pandemic, an epidemic that occurs worldwide or over a very large area, crossing international borders and usually affecting a large number of people (Porta, 2008; WHO, 2020, 27 April). COVID-19 was one of the main concerns of the population all over the world, but especially for the most vulnerable people who were already suffering from problems before the health crisis (Blix et al., 2021; Bou-Hamad et al., 2021; Varga et al., 2021; Zavlis et al., 2021). Although the World Health Organization declared the end of the COVID-19 emergency (WHO, 5 May 2023), the extent of the disease's long-term impact on individual and collective health is still unknown. The aftermath of the pandemic for those directly affected in one way or another is manifested in both physical (Blanco et al., 2021; Ceban et al., 2022) and psychological problems (Brasso et al., 2022; Kola et al., 2021; Manchia et al., 2022; Ramírez-Ortiz et al., 2020).

From the outset, several studies have highlighted the impact of the pandemic on mental health (Brooks et al., 2020; Duarte et al., 2020, Wang et al., 2021, Pierce et al., 2020; Saqib et al., 2023). Global mental health has deteriorated due to the coronavirus crisis (The Lancet Psychiatry, 2021), the effects of lockdown, and restrictions on mobility (Marroquín et al., 2020), among other factors (Ramírez-Ortiz et al., 2020). COVID-19 has been shown to have very common side effects, including fatigue, cognitive changes, and symptoms of anxiety and depression that manifest and persist months after infection (Penninx et al., 2022). The World Health Organization has indicated that the pandemic and associated disorders have led to a global increase in mental health problems, including generalized depression and anxiety. Specifically, the global prevalence of anxiety and depression increased by 25% in the first year of the pandemic (WHO, 2022, 2 March). In the United States, for example, 11% of adults reported symptoms of anxiety or depression in 2019, according to the National Center for Health Statistics. By January 2021, the percentage had risen to 41%, and although it fell to 32% in 2022, it was still significantly higher than before the pandemic (Berger, 2022, 27 August). This idea is also supported by Marroquín et al. (2020), who point out increases in depression and anxiety symptoms over time, as the presence of COVID-19 and social distancing grew in the United States.

1.2. Mental health and stigma

This increase in the prevalence of mental disorders has made it possible to address this public health issue in a more open and comprehensive way. However, people with mental illnesses have traditionally faced discrimination, negative stereotypes and prejudice, the central elements of stigma (Rüsch et al., 2005). A stigma that in some cases can lead to suicide, one of the leading causes of death worldwide, especially among young people aged 15–29 (Lopera-Mármol et al., 2023). In fact, suicide has been identified by the World Health Organization as a major global health problem, with more than 700,000 people taking their own lives in 2019. Such is the importance of this problem that reducing suicide rates is one of the indicators (the only one for mental health) in the United Nations Sustainable Development Goals (WHO, 2021).

On the other hand, stigma has been considered as a determinant of the health of a population (Goffman, 1963) because it hinders access to resources, social relationships and behaviors to cope with the illness itself (Hatzenbuehler et al., 2013). Stigma can also cause severe psychosocial harm (Goldberg, 2017). Although stigma is common to many diseases, this vulnerability is greater in some cases, mostly those that are attributed to morally sanctionable behaviors, those that are contagious or perceived as a threat, and those that are poorly understood by the population (Martinez & Hinshaw, 2016; Rüsch et al., 2005), as is the case with mental health.

Although mental illnesses have received more public attention during the pandemic (Gruber et al., 2021), to what extent has this increased attention led to a reduction in the stigma often associated with these disorders? Information is key to reversing this situation and reducing stigma. The media influences society's perception of reality (Aragonès et al., 2014); therefore, informational coverage of mental illnesses can influence the social stigma that often accompanies them. Because information plays such an important role in reducing stigma, it is essential to study mainstream and social media coverage of mental health during COVID-19.

1.3. COVID-19 and the infodemic

As in any crisis situation, the demand for rapid and effective scientific information increased during the COVID-19 emergency (Kearns & Kearns, 2020). The media, and social networks in particular, became allies for reporting. In Spain, social media networks are one of the main sources of health information (Diaz-Campo et al., 2023). Some studies have highlighted the positive use of social media to reduce the stress caused by the uncertainty of COVID-19 (Cambronero-Saiz et al., 2023). In addition, social media platforms can facilitate self-management of chronic diseases (De Angelis et al., 2018) and also provide data on health and behaviour at the population level (Sinnenberg et al., 2017).

But social media information can also become a potential threat due to the large amount of misinformation (Arriaga et al., 2021; Cambronero-Saiz et al., 2023, Vargas & Yébenes Cortés, 2023). In addition to a pandemic, the population also experienced an infodemic or infoxication, i.e., they received too much information, including false or misleading messages, in both digital and physical environments during the outbreak (Corinti et al., 2022; Gisondi et al., 2022; Rubinelli et al., 2022; WHO, 2020, 23 September). This is another element that can reinforce existing stigma (Creten et al., 2022).

The coronavirus pandemic particularly affected people with mental illness (The Lancet Psychiatry, 2021), who were already living with stigma in their daily lives and now had to cope with an infodemic, in some cases not knowing whether their sources or information were reliable and what the best information channels were. Within this need to improve

communication, graphic humour is an important element to consider.

1.4. COVID-19, mental health, and humor

Humor is a very effective mechanism for bringing a topic closer to a large number of potential readers (Anderson & Becker, 2018). Graphic humor, in particular, is a very powerful way of communicating current events, portraying issues with low visibility or highly stigmatized aspects (such as mental health), and helping to face threatening situations (Domínguez & Sapiña, 2022). Cartoons are also an interesting source of data for the study of social phenomena (Giarelli & Tulman, 2003; Sani et al., 2012). Several studies have shown that cartoons capture public opinion better than other interpretive journalistic genres (Abraham, 2009; Nwabueze, 2017), especially on controversial issues that generate debate. Comics were also successfully used in scientific communication during the pandemic (Kearns & Kearns, 2020).

In addition, these graphic representations can spread very quickly on the internet and often become highly persuasive memes, with great potential for media diffusion (Domínguez et al., 2014; Domínguez, 2015; Akram & Drabble, 2022). They also make it possible to better reach very diverse audiences, as demonstrated by certain projects working with cartoons to improve young people's understanding of COVID-19 (University of Leicester, 2021).

Good communication is becoming an essential tool in defending the rights of people with mental health problems. Despite the need for scientific communication (Kearns & Kearns, 2020), misinformation still exists in certain areas. Indeed, stigma and the lack of information remain two of the main barriers that prevent people with mental disorders from enjoying the same opportunities as the rest of the population (Baumann, 2007; The Lancet, 2022). In addition, positive stories about mental health – found on social networks or websites– can help other people affected by these disorders (DuBois & Walsh, 2021; Vansteenkiste et al., 2021).

Finally, when we talk about mental health and stigma, we cannot forget about suicides. Traditionally, suicides were not reported in the media for fear of contagion. This idea is now outdated, and the recommendation is to inform in a way that respects and protects the people and families involved, to avoid providing details, and to accompany the information with a telephone helpline.

Scope and research questions

This paper focuses on the analysis of mental health cartoons published during four years, from 2019 to 2022. The initial hypothesis is that the COVID-19 pandemic has helped to make mental health more visible in society. However, there is still very little research on whether this increased visibility has been accompanied by a more inclusive and normalized representation of mental illness, or whether certain stereotypes still persist. We therefore pose the following research questions (RQs):

1. Has the pandemic helped to raise social awareness of mental health?
2. Has the pandemic contributed to removing or reducing the stigma of mental illness?

2. Data and methods

2.1. Data collection

In order to obtain the sample, a search was made for explicit data on the subject of our study. We examined the image databases Cartoonistgroup (unfortunately no longer available in 2023), Cartoonmovement and Cartoonstock and conducted a Google search for cartoons in the period from January 2020 to December 2022, corresponding to the three years of the global pandemic. To compare these images with the previous year, 2019, we also examined the same databases and searched Google for cartoons published in the previous 12 months. Some Google results have led to the cartoonists' social networks, where they now regularly publish their cartoons.

The search used keywords in English, Spanish and French. The keywords used in the search were: "COVID and mental health", "mental health pandemic", "suicide and COVID", "COVID and suicide cartoon", "COVID and mental health cartoon", "COVID y viñetas salud mental", "pandemia y viñetas salud mental", "bande dessinée covid et santé mentale" for the 2020, 2021 and 2022 periods. For the period 2019, when COVID was not yet a common word – the WHO announced the name of this new disease in February 2020 (WHO, 11 February 2020) – we used "mental health" and "cartoons", and "santé mentale et bande déssinée" in French.

An initial sample of 538 cartoons was collected. After removing repeated cartoons and items not related to mental health (even if they were labeled as such), the final sample included 317 cartoons.

2.2. Classification according to adherence to journalistic guidelines

In order to know whether the analyzed items followed the same journalistic guidelines when discussing mental health, the cartoons were reviewed and classified according to the media recommendations for responsible reporting published by the program Time To Change[1] (2023) in England, which was used in previous works such as Hildersley et al. (2020). These guidelines asks professionals to avoid 1) inferring that people with mental health issues (PMHI) are a danger to others; 2) portraying someone with a mental health problem as a desperate victim; 3) describing symptoms or behaviors as 'strange' or 'odd'; 4) reporting details of methods of suicide or self-harm, because these can be triggering; 5) using disrespectful language; 6) sensationalist headlines that do not accurately represent the wider story; 7) stereotypical images such as head-clutching, outdated treatments, etc., and 8) potentially triggering images, including portrayals of self-harm or images of people in an acute state of illness or distress.

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[1] One of the documents used to prepare the categorisation is no longer available on the web, but it can be consulted as an annex at the following link: https://links.uv.es/FDl57F7

The classification was not exclusive and the same image may breach more than one rule. In fact, in some cases these breaches tend to be closely related, for example, portraying someone with a mental health problem as a 'desperate victim' and describing symptoms or behavior as strange or odd. For this reason, the number of unfulfiled rules is higher than the number of images analyzed.

2.3. Classification according to the contribution to the elimination of stigma

Stigma can be an important barrier to the detection of the disease and thus to early treatment (Hisham et al., 2021). The term stigma refers to problems related to knowledge (ignorance), attitudes (prejudice) and behavior (discrimination) (Thornicroft et al., 2007),

and anti-stigmatising elements therefore refer to their opposites: knowledge, objectivity and inclusion.

In order to know whether the pandemic has contributed to reducing the stigma of mental illness in cartoons, they were coded as stigmatising, anti-stigmatising/normalising, or neutral (those that met the inclusion criteria but did not contain any of the elements of the stigmatising or anti-stigmatising categories), following the suggestion of Hildersley et al. (2020) (see Table 1).

If a cartoon contained both stigmatising and normalising elements, the actions or dialogue of the main character were taken into account. In this sense, if several characters appeared in the cartoon, the person with the mental disorder was considered as the main character when analysing the cartoonist's treatment.

1. Stigmatising	2. Anti-stigmatising
1.1 A problem for others	2.1 Causes of mental illness
1.2 Danger to others	2.2 Injustice
1.3 Derogatory / using inappropriate language	2.3 Mental health stigma
1.4 Desperate victim	2.4 Prevalence of mental illness
1.5 Odd behavior	2.5 Promoting mental health
1.6 Personal responsibility causes	2.6 Recovery from or successful treatment of mental illness
1.7 Sceptic of the seriousness	2.7 Sympathetic portrayal of a person with mental illness

Table 1. Stigmatising or anti-stigmatising elements (Hildersley et al., 2020)

3. Results

As a result of our research about cartoons on mental illness after COVID-19, the data suggest a particularly remarkable increase in mental health cartoons in the first two years of the pandemic: 42 are dated in 2019 (13 %), 174 in 2020 (55 %), 73 in 2021 (23 %), and 28 in 2022 (9 %).

3.1. Journalistic guidelines applied to mental health

Of the total sample of cartoons analyzed (N= 317), almost half (n= 146; 46 %) do not follow the advice

to inform responsibly. They contain stigmatising elements in their portrayal of mental health problems. There are 171 cartoons (53.9%) that follow the recommendations of the good practice guides on mental health reporting, just over half of the sample. The most common rules violated are "describing symptoms or behavior as 'strange' or 'odd'" and "inferring that a PMHI is a desperate victim" (see Table 2).

	2019 (n=42)		2020 (n=174)		2021 (n=73)		2022 (n=28)		TOTAL (n=317)	
	n	%	n	%	n	%	n	%	n	%
Total sample										
Following guidelines	26	61.9 %	92	52.9 %	41	56.2 %	12	42.9 %	**171**	**53.9 %**
Not following guidelines	16	38.1 %	82	47.1 %	32	43.8 %	16	57.1 %	**146**	**46.1 %**
Journalistic rules										
Describing symptoms or behaviors as 'strange' or 'odd'	4	21.1 %	56	60.9 %	12	30.8 %	3	14.3 %	**75**	43.9 %
Inferring that PMHI are a danger to others	–	–	3	3.2 %	2	5.1 %	1	4.8 %	**6**	3.5 %

	2019 (n=42)		2020 (n=174)		2021 (n=73)		2022 (n=28)		TOTAL (n=317)	
	n	%	n	%	n	%	n	%	n	%
Inferring that PMHI are desperate victims	10	52.6 %	24	26.1 %	10	25.6 %	14	66.7 %	**58**	33.9 %
Potentially triggering images, including portrayals of self-harm	–	–	1	1.1 %	1	2.6 %	1	4.8 %	**3**	1.8 %
Sensationalist headlines that do not accurately represent the wider story	–	–	–	–	–	–	1	4.8 %	**1**	0.6 %
Sharing details of the methods used in suicide or self-harm	–	–	5	5.4 %	6	15.4 %	1	4.8 %	**12**	7.0 %
Stereotypical images	–	–	–	–	2	5.1 %	–	–	**2**	1.1 %
Use of derogatory language	5	26.3 %	3	3.3 %	6	15.4 %	–	–	**14**	8.2 %
Total	19	11.1 %	92	53.8 %	39	22.8 %	21	12.2 %	**171**	100 %

Table 2. Compliance with media coverage recommendations in the cartoons analyzed. Source: created by the authors

The cartoons continue to portray mental health stereotypes, such as straitjackets, guns or suicide (see Figure 1), portraying PMHIs as desperate victims.

Figure 1. Cartoons with stigmatising elements. Top left: Cartoon by Sanouni Imad, published on Cartoonmovement (08/10/2020), showing a stereotypical person in a straitjacket. Top right: Cartoon by Allan McDonald, published on Cartoonstock (26/08/2020), showing a gun that can be used to commit suicide or attack others. Bottom left: Cartoon by Signe Wikinson published on Cartoonistgroup (28/10/2020), showing stigmatizing elements in mental illness coverage. Bottom right: Cartoon by El Roto, published in *El País* (28/05/2022), showing a person with the text "I committed suicide with the wire of the suicide prevention helpline..."

On the other hand, images that aim to normalize mental health problems use visual metaphors to show the need for protective elements. For example, a brain in good mental health is compared to a good umbrella that protects us from rain and storms; when it rains, a good umbrella to keep us dry (Figure 2).

Figure 2. Cartoons with normalising elements. On the left, a cartoon by

Marzi @IntrovertDoodle, posted on 10/01/2019, visualizes mental health with a woman pulling a chain with two "ghosts": anxiety and depression. As she pulls, she says: "Come on. Let's go. We are doing this!", showing that she can control both pathologies. On the right, a cartoon by Malagón, published on elpais.com on 17/10/2021, which shows mental health without stigmatising elements, merely visualising the pathology. The text of the cartoon reads: "For good mental health".

3.2. The stigma of mental health illnesses

According to the classification by Hildersley et al. (2020), 197 cartoons (62.14%) contain stigmatising elements. Odd behavior is the most common, but the portrayal of cartoon characters as desperate victims and social skepticism about the seriousness of some mental disorders also stand out (see Table 3).

	2019 (n=42)		2020 (n=174)		2021 (n=73)		2022 (n=28)		TOTAL (n=317)	
	n	%	n	%	n	%	n	%	n	%
Overall sample										
Anti-stimatising	5	11.9 %	24	13.8 %	23	31.5 %	4	14.3 %	**56**	**17.7 %**
Neutral	2	4.8 %	43	24.7 %	13	17.8 %	6	21.4 %	**64**	**20.2 %**
Stigmatising	35	83.3 %	107	61.5 %	37	50.7 %	18	64.3 %	**197**	**62.1 %**
Stigmatising elements										
Danger to others	–	–	3	2.4 %	2	4.4 %	–	–	**5**	2.1 %
Derogatory language	7	16 %	2	1.6 %	6	13.3 %	–	–	**15**	6.4 %
Desperate victim	10	22.7 %	24	19.3 %	11	24.4 %	14	63.6 %	**59**	25.1 %
Odd behavior	5	11.4 %	57	46 %	12	26.7 %	5	22.7 %	**79**	33.6 %
Personal responsibility causes	–	–	3	2.4 %	–	–	3	13.6 %	**6**	2.5 %
Problem for others		–	3	2.4 %	1	2.2 %	–	–	**4**	1.7 %
Skepticism about the seriousness	22	50 %	32	25.8 %	13	28.9 %	–	–	**67**	28.5 %
Total	44	17.4 %	124	49 %	45	19.1 %	22	9.4 %	235	100 %
Anti-stigmatising elements										
Causes of mental illness	–	–	2	7.1 %	8	25.0 %	–	–	**10**	13.5 %
Injustice	–	–	1	3.4 %	–	–	–	–	**1**	1.3 %
Mental health promotion	3	33.3 %	21	75 %	17	53.1 %	3	60 %	**44**	59.5 %
Mental health stigma	1	11.1 %	3	10.7 %	1	3.1 %	–	–	**5**	6.8 %
Prevalence	1	11.1 %	1	3.4 %	3	9.4 %	–	–	**5**	6.8 %

	2019 (n=42)		2020 (n=174)		2021 (n=73)		2022 (n=28)		TOTAL (n=317)	
	n	%	n	%	n	%	n	%	n	%
Recovery/treatment of mental illness	2	22.2 %	–	–	2	6.2 %	–	–	**4**	5.41 %
Sympathetic portrayal	2	22.2 %	–	–	1	3.1 %	2	40 %	**5**	6.8 %
Total	9	12.2 %	28	37.8 %	32	43.2 %	5	6.5 %	74	100 %

Table 3. Frequencies and proportions of elements and total categories by year. Source: created by the authors.

For example, in one of the examples in the sample analyzed, the high cost of a psychological therapy session is discussed and compared to a cosmetic procedure, as if having a mental disorder and an aesthetic problem were comparable issues: "Girl, I've seen a lot on Instagram about how great it is to go to therapy, should we go too? But it's 50 euros a session." "What do you mean? No hyaluronic acid or anything?" (Anastasia Bengoechea, Monstruo Espagueti, Instagram, 11/10/2021). Another image (Glasbergen, https://www.glasbergen.com, 2019) shows a woman in a therapy session; the therapist tells her: "You're allowed one small carry-on, but each additional piece of emotional baggage is an extra $10." In terms of people acting oddly or shown as victims, one cartoon shows a woman with a bucket on her head saying, "This is me facing change", hiding from reality and trying not to see (Agustina Guerrero, Instagram, 18/02/2019).

Of the total number of cartoons analyzed (N=317), 56 (17.7 %) show anti-stigmatising or normalising elements, such as the prevalence of mental illness in society. For example, a cartoon entitled "Mental exercise" (Falcó Chang, 27/11/2021) shows the popular video game Tetris, where the "pieces" have to fit together to form a brain. Another present element is the need for awareness campaigns about mental health problems, as in the cartoon by Dans Cartoons (danbscartoons.com, 2019), in which a young man wears a T-shirt with the letters AD/HD ("attention deficit hyperactivity disorder"), in the style of the AC/DC logo worn by other classmates.

It also contributes to normalization by showing that recovery and successful treatment are possible. In a cartoon by Pedrita Parker (Instagram, 27/01/2021), a woman is seen preparing to run away and leave her problems behind, represented as a black monster who says: "You can't run from your problems!". Similarly, some of these portrayals show the multiple causes of mental health problems. The cartoon "The other fight" (Nani, cartoonmovement.com, 17/02/2021) shows the increase in mental health problems as a result of COVID-19. Finally, there is the kind and empathetic representation of psychologists towards people affected by these disorders, as in a cartoon by Malagón (Instagram, 25/10/2021) showing a man in a consultation with a professional psychologist. His mental problems are represented as a ball of wool on his head that the psychologist is knitting during the session. The idea of the cartoon is reinforced by the text: "For good mental health".

Finally, some images were classified as neutral because their message or the way they portrayed people with mental health problems could not be considered stigmatizing or anti-stigmatizing. For this reason, the remaining images analyzed (n=64; 20.2%) were considered neutral, i.e., they do not contain any significant stigmatising or normalising elements.

Comparing the years, stigmatising elements predominate every year. They were more present in 2019, before the pandemic, then decreased in 2020 and 2021, with an upturn in 2022.

These results answer our two research questions. In the first case, the pandemic has contributed to an increase in the presence of mental health cartoons. However, this increase has not contributed to reducing the stigma of mental illness at the visual level – our second research question. These findings are discussed in the following section.

4. Discussion

This study is innovative in two ways. First, to the authors' knowledge, this is the first time that a study has been carried out on how cartoonists portray mental illness. Second, this line of research allows us to gain a better understanding of the relationship between these two epidemics: COVID-19 and mental health, and their representation in cartoons.

In the light of our results, the COVID-19 pandemic has contributed to making mental health more visible in cartoons and has confirmed their value as a tool for analysing current events that can be used to raise awareness of mental health problems (Labbé et al., 2022).

COVID-19 has changed our lives in many ways. Although studies showing a clear link between suicidal behavior and the outbreak of the pandemic are still controversial (Barlattani et al., 2023), research confirms that the COVID-19 pandemic has worsened the mental health of the population – with negative psychological effects, symptoms of post-traumatic stress, confusion and anger (Brooks et al., 2020) – and increased the severity of the epidemic in those who already had it (Chatterjee et al., 2020; González-Blanco et al., 2020).

This increase has had a twofold effect: an increase in public concern about mental illness and a greater representation of mental health in graphic humor, especially in 2020, the year of the pandemic's greatest impact. Cartoons are therefore an element of visibility of social reality and an obvious tool for the analysis of social reality (Shurkin et al., 2015; Domínguez & Sapiña, 2022) and for the dissemination of relevant social issues.

Cartoons are common tools for information and dissemination (both in traditional media and in digital

formats), but they do not yet have their own standards and guidelines. In this sense, journalistic standards can be adapted for them, to ensure an appropriate use of language and images in the communicative message, including in the field of health. And online cartoon repositories, like any other communication channel, offer a perspective on current issues that may be of interest to the public (Labbé et al., 2022).

As the results show, and answering our second research question, only just over half of the cartoons follow journalistic guidelines for reporting on mental health and suicide. The other half do not follow these guidelines and provide a stereotypical portrayal of people with mental health problems. The guidelines developed to promote responsible information in the media and social networks (Robinson et al., 2021) point the way forward, but there is still some way to go before the majority of cartoonists contribute to reducing mental health stigma.

The number of cartoons that follow journalistic standards has decreased over time, while the number that do not has increased. This suggests that while the pandemic has focused attention on mental health, it has not led to better representation of people with mental health problems, but rather to more stereotypical portrayals. In other words, according to the cartoons analyzed, not only has no progress been made, but the situation now seems to be worse (fewer cartoons than in 2019 and a higher percentage of cartoons that do not follow good journalistic

standards). The reasons for this situation could be a lack of knowledge about the characteristics of the diseases, a lack of empathy or even the use of dark comedy to make the public laugh.

People living with mental illness are among the most stigmatized groups in society (Stuart, 2008). Stigma and discrimination against people with mental health problems are pervasive in all cultures (The Lancet, 2022). Stereotypical images are present in cartoons and come from a variety of contexts. Stigma denigrates the value of people with mental illness (Walsh & Foster, 2021). Indeed, the stigma of suicide and mental health is seen as a barrier to seeking help and few interventions have been made to reduce it (Oexle et al., 2020). Stereotypes and misconceptions persist in cartoons, and these representations can influence public perceptions of mental health. As Stuart (2012) says, building an evidence base for best practice in tackling stigma must remain a priority. In this sense, cartoons can contribute to these interventions or even constitute a new line of action.

Although the juxtaposition of the COVID-19 pandemic and the infodemic – exacerbated by the context of crisis – has led to serious mental health problems, it can also represent an opportunity for improvement in several aspects (see Figure 3), such as increasing the visibility of these disorders, reducing the stigma they carry, and improving research on these topics to face the challenges posed by these diseases.
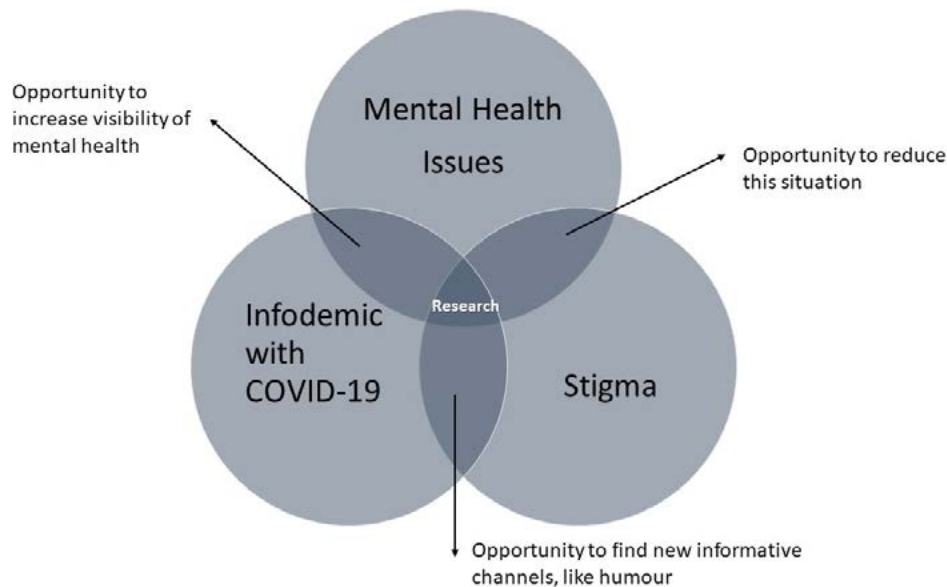

Figure 3. Risks and opportunities arising from the confluence of the population's mental health problems and the COVID-19 pandemic, the infodemic, and the stigmatisation of people suffering from such problems. Source: created by the authors.

Greater visibility and coverage of mental health, using naturalizing elements such as explaining its causes or appointing ambassadors to share their experiences with this type of illness, could help reduce its stigma. The responsibility does not lie solely with institutions and administrations (Carr & Ponce, 2022); any possible solution must involve the whole of society (Jakubauskiene, 2021), and that includes cartoonists.

This research has some limitations, including the sample size and the fact that the study is limited to

only four years. It will be interesting to analyze more cartoons in the coming years. It would also be interesting to extend this study to more databases and social networks, as well as more cartoons from different countries.

4.1. A decalogue of good practices

However, this study proposes to extend the standards of journalism, often used for informative genres, so that they can also be applied to interpretive genres, specifically to graphic humor. For this reason,

we propose a decalogue (Figure 4) based on existing recommendations, specific to cartoonists, which can help them to portray mental illness in a more respectful and normalising way.

The increased visibility of mental health in social networks and cartoons during COVID-19, as this study shows, should be used to implement guidelines to help cartoonists. Guidelines and decalogues already exist for written journalism, but need to be implemented for visual proposals. This decalogue (Figure 4) is a first step towards answering our study questions and helping to make mental health visible and reduce its stigma through appropriate visual approaches.

DECALOGUE
of good practices for a non-stigmatizing visual representation of mental health issues

- Do not portray people with mental health issues as a danger to others. **1**
- **2** Do not present them as desperate victims.
- Do not portray them as weaker or more fragile. We all have moments of weakness and moments of strength. **3**
- **4** Do not portray symptoms or behaviors as 'odd' or 'weird'.
- Do not show details of methods used in a suicide attempt, as this may give vulnerable people ideas. **5**
- **6** Avoid depicting self-harm, as this may encourage similar behavior.
- Do not use disrespectful text or vulgarize mental illness with incomprehensible or absurd language. **7**
- **8** Do not show people with mental illness making ridiculous faces or gestures.
- Do not use stereotypical images (straitjackets, controversial treatments such as electroshock, etc.). **9**
- **10** Be empathetic. Mental illness can affect anyone around you. Try to understand them and put yourself in their shoes.

Figure 4. Decalogue of good practices for a non-stigmatising visual representation of mental health issues.
Source: created by the authors.

In conclusion, this study can influence three areas: graphic humour, research on the social communication of science, and society in general. Firstly, cartoonists can become aware of the stigma their cartoons perpetuate and follow the advice of the decalogue to overcome it. Secondly, it opens up a new line of future research to monitor the evolution of mental health cartoons. Moreover, it may help to encourage further studies on the use of cartoons to analyse the representation of other diseases or even other aspects of everyday life.

And thirdly, the dissemination of this study can raise awareness among the general population of the stigma suffered by people with mental illness and begin to reverse the situation. We believe that the recommendations for good practice in the visual representation of diseases, their patients, and associated health risks are useful not only for COVID-19, but can also be applied to other crises. In a world increasingly affected by issues affecting people's health, such as the climate emergency, we need to develop criteria to inform rigorously and without alarmism, including through graphic humor and cartoons.

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