MENTAL HEALTH IMAGES ON THE INTERNET: A FACEBOOK AND DIGITAL MEDIA CONTENT ANALYSIS IN SPANISH

IMÁGENES DE SALUD MENTAL EN INTERNET: UN ANÁLISIS DEL CONTENIDO DE FACEBOOK Y LOS MEDIOS DIGITALES EN ESPAÑOL

Lorena Cano-Orón / lorena.cano@uv.es
Universitat de València, València, España

Empar Vengut-Climent / empar.vengut@uv.es
Universitat de València, València, España

Carolina Moreno-Castro / carolina.moreno@uv.es
Universitat de València, València, España

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ABSTRACT

This work analyses the mental health image in Spanish in digital media and social networks after the Human Rights Council adopted resolution 32/18, on mental health and human rights, on July 1, 2016. A standardised content analysis was performed from a sample of 370 news items published during six months, between August 2016 and January 2017, to determine if the journalistic treatment of the stories was positive, negative, equidistant or institutional. Likewise, 352 Facebook pages were studied, with the same analysis criteria as digital media. Among the most outstanding results, it was found that only 53% (n = 196) of the articles analysed addressed mental health directly. Of them, 40% (n = 79) treated it positively while 26% (n = 50) still referred to mental health negatively. Besides, there was a high percentage of articles in which mental health was treated metaphorically, 18% (n = 35), also contributing negatively stories to the stigmatisation of mental illnesses. The analysis of the Facebook pages showed a low proportion of positive treatment of mental health , only 5% (n = 18), and the content of 61% of the sample studied (n = 215) had nothing to do with mental health.

RESUMEN

Este trabajo analiza la imagen de la salud mental difundida a través de medios digitales y redes sociales, en español, tras la aprobación de la resolución 32/18 del Consejo de Derechos Humanos, sobre salud mental y derechos humanos Para ello, se realizó un análisis estandarizado del contenido de una muestra de 370 noticias publicadas durante un período de seis meses, entre agosto de 2016 y enero de 2017, para determinar si el tratamiento periodístico de las noticias era positivo, negativo, equidistante o institucional. Asimismo, se estudiaron 352 páginas de Facebook, con los mismos criterios de análisis. Entre los resultados, destaca que sólo el 53% (n = 196) de los artículos abordaron directamente la salud mental. De ellos, el 40% (n = 79) lo trató positivamente, mientras que el 26% (n = 50), negativamente. Además, un alto porcentaje de artículos (18%, n=35) trataba la salud mental metafóricamente, lo que contribuye también a la estigmatización de las enfermedades mentales. El análisis de las páginas de Facebook mostró una baja proporción del tratamiento positivo de la salud mental (5%, n = 18), y en el 61% de la muestra estudiada (n = 215) el contenido no tenía nada que ver con la salud mental.

KEYWORDS

Mental health; internet; Facebook; digital media.

PALABRAS CLAVE

Salud mental; internet; Facebook; medios digitales.

1. INTRODUCCIÓN

The construction of the images that are spread through digital media and social networks have great value for research in the field of social perception of citizens (Eurobarometer, 2010, 2014, FECYT, 2017, NSF, 2018). These opinion polls try to measure the opinions of citizens around different topics of science, technology, medicine, and the environment. Citizens are usually asked to respond through which sources or channels they get the information on various issues with the aim of correlating their points of view with the sources through which they are well-informed. Among these sources of consultation that citizens access are the media, social networks and the Internet. During the last 50 years, numerous theoretical contributions have been made about the trust and the value that users give to the information sources (Wade & Schramm, 1969; Ghanem & McCombs, 2001; Clayman *et al.*, 2010; Johnson, 2013). In fact, in the field of health, the search of information through the Internet by users before consulting with their doctor, is already a constant (Brodie *et al.*, 2000, Dickerson *et al.*, 2004; Berger, Wagner, & Baker, 2005; Hesse *et al.*, 2005; Ayers, *et al.*, 2007). Therefore, this research analyses data from two common sources of information in order to know what mental health image is spread in the digital media news and through the social network Facebook, in Spanish. On the 1st of July 2016, the United Nations Human Rights Council, adopted resolution 32/18, recognising the human rights of people who use mental health and community services. According to McSherry & Waddington (2020), this resolution expressed concern towards people with mental impairments who seek treatment and frequently suffer widespread discrimination, stigma, prejudice, violence, social exclusion and segregation, unlawful or arbitrary institutionalisation, and over medicalisation. All of these practices do not respect the autonomy of the person, nor their will, nor their priorities. At the national context, in April 2017, the Confederation of Mental Health of Spain, together with the Federation of Mental Health of Castilla and León and the association FAEMA Mental Health of Avila, held the XX Congress of the Spanish Mental Health Movement, under the title 'A Life in the First Person'. This title wanted to represent an essential concept that determines the life of any human being and refers to their ability to take control of their life. This skill will be depending on the means available to them in the specific society in which they live and develop (Confederación de Salud Mental España, 2018). In this context, of particular sensitisation on mental health from the public institutions, this exploratory study was initiated.

From the review of Wahl's literature (1992) on the images of mental illness built by the media to the article by Hasan & Thornicroft, (2018), in The Lancet Psychiatry, on the campaign that the media are doing to reduce the stigma on mental health in Bangladesh, numerous research has been carried out. One aspect that has regularly been studied is the correlation of the mental illness with violence and dangerousness, traits that contribute to stigmatisation (Pucho, 2007; Klin & Lemish, 2008; Pérez, 2011; Reavley, Jorm & Morgan, 2016 and Brailovskaia & Margraf, 2018). Regarding the images of mental illness built by the press, Bowen (2016) studied the newspapers in the United Kingdom (period 2001-2012), to see if it was contributing to the generation of stigmatisation of people with a personality disorder since he thought there was an established link between this pathology and homicide. In this study, it was found that 42% of the articles that dealt with this disorder linked it to murder. Although, indeed, this study and others (Rhydderch *et al.*, 2016) found that over the years, the articles promoting this link were decreasing, they were still present. Another study, carried out by Murphy *et al.* (2013) performed a longitudinal study in the British press and discovered that the news tends to separate people with mental illness from the general public, highlighting this group because of its relationship with

violence and drugs, generating an image of danger. In this sense, Quintero & Miller (2016) stated that this link makes it easier to understand social violence as a consequence of mental illness thus, society would better accept this type of behaviour.

This issue is not specific to the United Kigdom, Bowen (2016) compared the results of his work with other similar publications, specifically, with case-studies from Spain, where 49% of the news linked the disease with danger (Aragonès *et al.*, 2014); of the Bermuda Islands, where the percentage decreased to 39% (Roberts *et al.*, 2013); and with Romania, the country with the best figures, with 38% (Calo & Baban, 2013). In the United States, the link between dangerousness and violence and mental health was present in 39% of the cases (Corrigan *et al.*, 2005, 2013). A comparative review of the treatment of mental health in newspapers from culturally different countries showed that the tendency to the negative representation of mental health, mainly associated with dangerousness, is common among different countries (Vengut-Climent, 2018).

More specific studies also showed how gender is significant in mental health publications. In the United Kingdom, it has been detected that there is poor visibility of men with eating disorder problems, being atypical cases those that appear in the press (MacLean *et al.*, 2015). In the research by Quintero & Miller (2016), who analysed the news, films and television shows in the United States, they detected that when the story was about a woman who committed a brutal act of violence, it was used to justify her behaviour relating it to some type of previous abuse, depression, anxiety, discrimination, etc. In the case of the news starred by men, they detected that they qualified them as psychopaths, having pathological and particular tendency to understand the world. Whitley *et al.* (2015) stated that, in the Canadian press, articles featuring men tended to be related to crimes and violence, while those involving women were linked, for the most part, to positive issues such as the recovery of mental health or denunciation issues. However, they also clarified that, quantitatively, during the period studied there were more crimes committed by men than by women.

The Spanish scenario was analysed meticulously by Aragonès *et al.* (2014), who with a corpus of 695 news (of which 333 were noise), they conducted a content analysis that showed that the texts reinforcing the stigma in the Spanish press are significant. 48% of the journalistic stories they worked with had to be discarded because they did not address a mental health issue. Still, they did use its terminology as a metaphor, generally negative. Of the texts that were related to mental health, 49% linked the disease with danger and 36% with crime and violence.

These data supported the study by Mateo Aguilar (2013), who like Muñoz (2011) and Aragonès (2014), also found the news in which terminology was used about mental illness without being related to the medical field. This resulted in a negative news rate of more than forty per cent, especially related to depression and schizophrenia. Muñoz (2011) warned that, although there were no significant differences between the different media, the news that dealt with mental health issues was written more rigorously in the written press. Navarro Moreno and Olmo López (2015) analysed the image of the mental patient in Canal Sur TV, and they detected that only 20% of the news was negative and 30% positive, frequently addressing the disease. However, they discovered that the number of reports generated by a dramatic event doubled those positive events, which were only covered by a single piece. And, considering that a negative piece of news weighs more than a positive one from the point of view of the perception of the spectator, this data was not very encouraging. According to the latest study published on the mental health situation in the media (Revuelta *et al.*, 2017), the typical news fact that motivates the media to publish on mental health has been: statements by public figures on the subject (like when a famous person admits having a mental illness), medical advances (publications of research re-

sults), or institutional or political data on the subject. In general, they found more positive news, intending to break barriers and eliminate stigma, but found contradictions in them, either by the use of a negative image or by the type of language used.

Regarding the treatment of mental health problems through photojournalism, Pardo Sainz (2017) stated that we are facing a humanisation of images, although still from a paternalistic perspective, in which criticism and victimisation photographs of people with mental illness predominate. Revuelta *et al.* (2017) pointed out that, even though much social criticism news takes care of the textual form, in order not to discriminate or stigmatise, often the use of alarming, obscure photographs, which describe isolation or pain, achieve the opposite of the intended effect with the news. This contrasts with what Pardo Sainz (2017) found on social networks, where the generation of images by people with mental illnesses, family and associations showed a positive, natural, autobiographical charge, where a daily reality wass presented far from the sensationalism or the typical photographs of the media.

Studies on the image disseminated on Facebook about mental health or about Google searches on related topics are beginning to be carried out in this last decade (Calheiros Velozo & Stauder, 2018). Currently, a relevant line of research is the empowerment of people with mental health problems through spaces such as Facebook. Therefore, the detection of behaviour and expression patterns in social networks by people with depression and suicide risk is being investigated, to detect the problem early and be able to intervene. Also to give added value to social networks, as a form of expression and common communication space (Jelenchick, Eickhoff, & Moreno, 2013; Gómez, 2014; Cabrera Arriaga *et al.*, 2015; Martín Pérez, Cano Bravo & Moreno Antequera, 2015; Brusilovskiy *et al.*, 2016; Robinson *et al.*, 2016; Barry *et al.*, 2017; and Frost & Rickwood, 2017).

The objective of this work is to analyse the mental health image in digital media and social networks, in Spanish, after the Human Rights Council adopted resolution 32/18, on mental health and human rights, on July 1, 2016. The digital sphere is widely interconnected and this study introduces an analysis of both platforms using similar criteria. This work intends to open the door to the analysis of mental health image on the Internet with a wider perspective.

2. DESIGN AND METHOD

The main objective of this study is to identify the treatment and coverage of mental health in two digital sources, digital newspapers and Facebook, to put into perspective more recent data on the reality of Spanish speakers.

To this end, a study is carried out from both quantitative and qualitative perspectives, analysing, on the one hand, the reality mediatised through the digital press and, on the other, the social reality that occurs in informal spheres such as social networks, in this case, on Facebook.

Through various content analyses designed ad hoc for these situations, the study of the representation of mental health in these two spheres is systematised.

3. FIELDWORK AND DATA ANALYSIS

3.1. NEWS ABOUT MENTAL HEALTH PUBLISHED IN DIGITAL NEWSPAPERS

Selected journals

To carry out the research MyNews database was used. This database collects 1,366 digital media in Spanish. Among the selected media, there was no discrimination between the different genres of publication[1], nor about the coverage (international, national, regional and local). No distinction was made between the means of free or paid access. The only filters that were selected were the following categories: a) temporary (from 08/01/2016 to 01/31/2017); and b) physical (digital media), thus limiting the search to 380 newspapers.

Descriptors

To search mental health related news in the MyNews database, the following associated descriptors and words were used: Enferm* mental ('mental patient/illness'), salud mental ('mental health'), esquizofrenia ('schizophrenia'), loco ('crazy'), demente ('insane'), maniaco/maníaco ('manic'), trastorno bipolar ('bipolar disorder'), trastorno de la personalidad ('personality disorder'), adicción ('addiction'), trastorno alimenticio ('eating disorder'), anorexia, bulimia, tratamiento psiquiátrico ('psychiatric treatment'), trastorno mental grave ('severe mental disorder'), patología dual ('dual pathology') (Table 1).

Table 1. Percentage of news that was found for each of the descriptors

Descriptors that were used to retrieve the news about mental health **	News found by each descriptor	Percentage of news found by each descriptor
Enferm* mental	1200	13%
Esquizofrenia	1200	13%
Adicción	1200	13%
Loco	1200	13%
Salud mental	989	11%
Anorexia	845	9%
Trastorno de la personalidad	467	5%
Trastorno bipolar	462	5%
Bulimia	383	4%
Tratamiento psiquiátrico	361	4%
Trastorno mental grave	317	3%
Demente	234	3%
Maniaco/maníaco	182	2%
Patología dual	141	1%
Trastorno alimenticio	61	1%
TOTAL	**9242**	

Source: MyNews. Own creation

** The compound words were searched using quotation marks; those that are derived from more than one term, such as «personality disorder», were sought with the Boolean expression NEAR (eg., NEAR Personality Disorder), because it could appear as 'Transtorno de Personalidad' or 'Transtorno de la Personalidad' or derivatives.

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[1] Publication genres analysed: Communication; Consumption; Culture and Leisure; Sports; Economic; Business; Free; General information; Legal; Marketing; Environment; Human Resources; Health & Wellness; Social; Society; ICT.

Of the 9,424 news items that made up the corpus of news found during the search, a representative sample of 370 news items was selected, using the central limit theorem. The data in this sample showed a 5% sampling error and a 95% confidence level. The increased coefficient of each news item is 25. In order to improve the reliability of the coding process, the codebook was jointly prepared, and disagreements were resolved consensually among seven members of the ScienceFlows research team.

Analysis method

The method of analysis of the selected sample was the analysis of systematised and standardised content. First, we proceeded to eliminate the noise of the selected sample. The news was divided as follows: a) those that alluded to the descriptors chosen for the study, but that were not the main topic of the story (used anecdotally, hardly developed); b) use of the descriptors, selected for the study, as a metaphor; and c) news valid for content analysis. The fields of analysis used in the registration form for the study are included in Table 2.

Table 2. Classification of the analysis fields used for the analysis of the published news about mental health in digital newspapers

Fields of analysis	Categories	Description	
Image spread about mental health**	Negative	Contributes to the generation of social stigma	Links a mental health problem with dangerousness
			The aetiology of the disease is attributed to the person or family
			The focus of the news was on the health problem to justify the legal defence
		Journalistic style	They do not comply with the style protocols published by mental health associations
	Positive	Addresses mental health by relating it to:	Actions defending their rights
			Scientific discoveries that would improve treatment
			Integration of people suffering from mental illness
			Recovery
	Neutral / Institutional	Aseptic announcement of news and events related to mental health, science news, basic information	They tend to be institutional information about budget increases or decreases and institutional acts. Recipients do not perceive them as positive nor negative news, only as an informative item.
	Equidistant	There are positive and negative nuances in the same piece of story	

Audiovisual content	Present	Type of content
	Absent	
Connotation audiovisual	Documental	Neutral image
	Positive symbolic	Image of improvement, victory or struggle
	Negative or sensationalist symbolic	Image that depicts violence, pain or confusion scenes

Source: Own creation

** The categories that have been used to measure this variable have been designed based on previous studies by Wahl *et al.* (2003), Corrigan *et al.* (2005), Revuelta (2006), Aragonès *et al.* (2014), and Revuelta (2017)

3.2. FACEBOOK PAGES ON MENTAL HEALTH

Descriptors

To analyse the Facebook pages, all those websites containing any of the following descriptors were selected: enfermo mental ('mental patient'), enfermedad mental ('mental illness'), salud mental ('mental health'), esquizofrenia ('schizophrenia'), trastorno bipolar ('bipolar disorder'), bulimia, anorexia, adicción ('addiction'), trastorno de la personalidad ('personality disorder') (Table 3). Given the high percentage of metaphorical use of specific descriptors as crazy, insane and manic and the low incidence of the use of eating disorder, these descriptors were eliminated from the search.

Table 3. Percentage of Facebook pages that were found with the descriptors selected for the study

Facebook descriptors	Pages found	Percentage of pages found
salud mental	1539	38%
adicción	1259	31%
anorexia	562	14%
bulimia	285	7%
esquizofrenia	199	5%
trastorno bipolar	76	2%
enfermo mental	21	1%
enfermedad mental	41	1%
trastorno de la personalidad	43	1%
TOTAL	**4025**	

Source: Own creation

Content search

To collect the information from the Facebook pages, the Data Miner application was used. This free software manages all the information that appears on the screen after performing the search. A total of 4,115 pages were located. After eliminating the noise, the corpus was reduced to 4,025 items. Due to the magnitude of the analysis units, a representative sample was designed, fulfilling the same criteria as for the press analysis: 95% confidence interval, 5%

sampling error and an increased coefficient of 11. The complete set of the systematized random sample was of 352 case studies.

A limitation of this type of data collection is that it is not possible to specify the time frame in which the content was published, nor can geolocation be distinguished, so the data with which it was worked did not fit the study period, but the entire time period covered by Facebook, and are not specific to a particular country, but to the content published in Spanish.

Analysis method

To address the analysis of Facebook pages, a standard content analysis sheet was designed (Table 4).

Table 4. Classification of the analysis fields used for the analysis of the Facebook pages on mental health

Fields of analysis	Categories	Description
Mental health image spread**	Negative	Display of violence, pain or contempt towards people with mental health problems
	Positive	Contain messages of integration of people with mental illness in different activities
	Neutral / Institutional	They show announcements of news and events, or news about science, or about information from different associations, etc.
	Artistic-creative	They use the name of mental illness as the "last name" of an artistic group, they publish "lovelessness" poems and stories, or fondness for a specific topic
	Other	Exceptional cases that did not meet the requirements of the previous ones
		Pages related to bulimia, and with anorexia
		Pages that deal with different addictions
Typology of the story	First-person	
	Group	
	Institutional	
Audiovisual content	Present	Type of content
	Absent	
Type of audiovisual content production	Own	A unique story about mental health
	Alien	Dissemination of contents
	Hybrid	Mix the two functions

Source: Own creation
** Analysis of the title, the description of the page and the content published during the last months.

4. RESULTS

4.1. THE CONSTRUCTION OF MENTAL HEALTH IN THE DIGITAL PRESS

The 370 news items that make up the analysis sample were subjected to a first classification process in which a distinction was made between that news items that addressed mental health as the main topic or as a secondary topic (196 news, 53%) and news that did not focused on it directly, which was called noise (174 news, 47%) (Table 5).

Table 5. Media noise related to mental health

| Descriptor | News | Noise | | TOTAL |
		Allusion	Metaphor	
Enferm* mental	42 (11%)	5 (1%)	0 (0%)	**47 (13%)**
Esquizofrenia	30 (8%)	11 (3%)	7 (2%)	**48 (13%)**
Adicción	23 (6%)	19 (5%)	5 (1%)	**47 (13%)**
Loco	3 (1%)	3 (1%)	42 (11%)	**48 (13%)**
Salud Mental	22 (6%)	16 (4%)	1 (0%)	**39 (11%)**
Anorexia	16 (4%)	20 (5%)	2 (1%)	**38 (10%)**
Trastorno de la personalidad	12 (3%)	6 (2%)	0 (0%)	**18 (5%)**
Trastorno bipolar	7 (2%)	10 (3%)	2 (1%)	**19 (5%)**
Bulimia	9 (2%)	6 (2%)	0 (0%)	**15 (4%)**
Tratamiento psiquiátrico	8 (2%)	5 (1%)	1 (0%)	**14 (4%)**
Trastorno mental grave	11 (3%)	2 (1%)	0 (0%)	**13 (4%)**
Demente	3 (1%)	1 (0%)	5 (1%)	**9 (2%)**
Maniaco/Maníaco	4 (1%)	1 (0%)	2 (1%)	**7 (2%)**
Patología dual	6 (2%)	0 (0%)	0 (0%)	**6 (2%)**
Trastorno alimenticio	0 (0%)	2 (1%)	0 (0%)	**2 (1%)**
TOTAL	**196 (53%)**	**107 (29%)**	**67 (18%)**	**370**

Source: Own source

The documents that made up the noise were, in turn, classified according to whether they were not related to mental health, but they used terms to refer to a type of uncontrolled, aggressive or irrational behaviour, that is, they used a metaphorical construction of mental health (67 news, 18%); or if the story in which a descriptor appeared in the text, was not directly related to the main topic. These news items were classified as allusions and, in the period analysed, they were detected in 29% of the sample (107 news items).

The term loco ('crazy') is the most widely used in a metaphorical sense, 88% of the news containing this descriptor used it in a metaphorical sense.

According to the content analysis of the news that directly addressed mental health, the image that media builds about mental health problems was more favourable (79 news, 40%), than negative (50 news, 26%). However, the fact that there were 14% more positive stories than negative ones does not mean that the final result was positive, because, in the press, negative news have higher cognitive weight for the citizens. The equidistant news represented 16% of the codified corpus (32 news), slightly lower than the percentage of news about mental health that was narrated in an aseptic way, formed mostly by press releases from public institutions (35 news, 18%).

If we look at the results in detail, we can distinguish that the tendencies towards positive or negative biases of the journalistic pieces were related to the specific issues that were addressed. When a topic was about a person with a mental health condition (or illness) and mental health, in general, the trend is positive, but if the issue was related to schizophrenia, addiction, or personality disorder, we see that the trend is negative (Figure 1).

Figure 1. Press image of the descriptors analysed
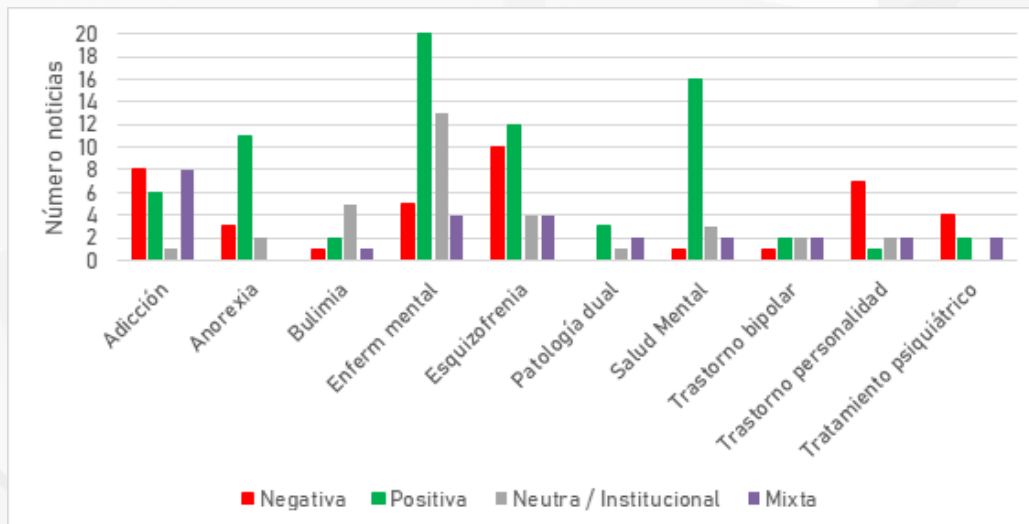
Source: Own source

In terms of audiovisual content, half of the news was not illustrated by any image and / or video, an unusual practice in digital journalism. The most used format, by far, was photography, present in 46% of the corpus (81 news items). The video was used only 2% of the time (2 news items), and the appearance in the same news of photographic and documentary material was also 2%. The tendency observed was that the topics that were represented graphically the most are adicción ('addiction'), esquizofrenia ('schizophrenia') and enfermo (o enfermedad) mental ('mental patient (or illness)'). While the descriptors trastorno alimenticio ('eating disorder'), loco ('crazy'), demencia ('dementia') and maniac ('manic') are those who just had supportive graphic material in the news that addressed them.

Positive photographs, in which they showed people with mental health problems integrated into society, in which they did not emphasise, or did not try to represent graphically something that at first sight cannot be observed, reached only 5% of the corpus studied (5 news items). The graphic material used by the journalistic stories had, mainly, a documentary function (66 news items, 79%). That is, they were photographs without a positive or negative bias, representing the event, or illustrating the people involved in a testimonial way. On the other hand, we identified 16% of photographic material (15 news items), qualified as negative or sensationalist that illustrated the disease showing people suffering or who are confused, or isolated, also using photo manipulation techniques to reflect that representation with greater vehemence.

4.2. IMAGES ABOUT MENTAL HEALTH ON FACEBOOK

From the conglomerate of 4,058 Facebook pages, including mental health labels, a sample of 352 pages was selected, of which 61% were found to be noise (217 pages) (Table 6). That

is pages including search tags, but not related to mental health. That set of pages was formed by 33% heterogeneous pages (117 pages), and 28% of pages that premeditatedly used the descriptors to 'justify' the creative content they published on Facebook (98 pages). This type of pages tended to be music groups, literary authors, and artists who, in some way, wanted to echo that link that lies in the social imaginary in which mental instability is related to genius or artistic sensitivity. The remaining 39% (137 pages) were directly related to mental health, whether positively, negatively or neutrally.

Table 6. Distribution of Facebook pages analysed according to the selection and the image they generate about mental health

Mental Health Image	Sample coding (352 items)				
	Artistic/ Creative	Heterogeneous	Negative	Positive	Neutral/ Institutional
Number of pages	98	117	6	18	113
Percentage of pages	28%	33%	2%	5%	32%

Source: Own source

The volume of Facebook pages publishing neutral or institutional topics related to mental health was 32% (113 pages), being the type of content that had the most presence in the social network (Table 6). That is to say, the publications on Facebook of science-related items, essential information to disseminate, events advertisements or information about an institution or association were those that predominated in the discursive flow that was created in the social network. The pages with negative content about mental health, such as those that spread memes, jokes, despise mental illness, or those in which mental health is related to scenes of violence or pain, represented 2% (6 pages).

Regarding the typology of the story of the pages, the most abundant style was institutional, present in 58% of the cases studied (204 pages) (Table 7). This result is not only consistent with the volume of pages that gave an institutional or neutral mental health image but also coincides with the initial purpose of Facebook pages, which is to create a direct communication channel from a company or association.

Table 7. Typology of the story on the Facebook pages

	Typology of the story			
	First person	Group	Institutional	Not applicable
Negative	2 (0%)	4 (1%)	0 (0%)	0 (0%)
Positive	1 (0%)	2 (0%)	15 (4%)	0 (0%)
Neutral / Institutional	4 (1%)	2 (0%)	105 (29%)	2 (0%)
Artistic / Creative	44 (12%)	20 (6%)	29 (8%)	5 (1%)
Heterogeneous	27 (8%)	16 (5%)	55 (15%)	19 (5%)
TOTAL	**78 (22%)**	**44 (13%)**	**204 (58%)**	**26 (7%)**

Source: Own source

However, the second type of story, with more significant presence on Facebook pages, is the first person (78 pages, 22%). People with mental illness wrote these pages and published their evolution and perspective when assessing everyday situations, either as a 'therapy' or to raise awareness. This type of story, but in a choral way, that offers a group, association vision represented 13% of the corpus analysed (44 pages). 7% of the cases (26 pages) could not be classified according to the proposed categories because they did not publish any text that would allow them to identify the type of narration that they adopted.

Photography was also the most used audiovisual medium (Table 8), since it was present in 48% of the cases (170 pages), and the combination of video and photography was also frequent in 35% of the sample (122 pages). However, video as the only audiovisual support technique and medium of expression was present in 4% of the pages (15 pages). Regarding the type of production of audiovisual content; that is, the originality or rebroadcast of the graphic resources of the page, the tendency was to play other people's content (117 pages, 33%), and combine them with news and own resources (118 pages, 34%). The percentage that represented Facebook pages that only use their sources and their audiovisual material was 20% (70 pages).

Table 8. Audiovisual presence on Facebook pages

	Presence of audiovisual content			
	No	Photography	Video	Both
Negative	0 (0%)	3 (1%)	2 (0%)	1 (0%)
Positive	0 (0%)	7 (2%)	0 (0%)	11 (3%)
Neutral / Institutional	13 (4%)	52 (15%)	5 (1%)	43 (12%)
Artistic / Creative	4 (1%)	55 (16%)	0 (0%)	39 (11%)
Heterogeneous	28 (8%)	53 (15%)	8 (2%)	28 (5%)
TOTAL	**45 (13%)**	**170 (48%)**	**15 (4%)**	**122 (**35%)

Source: Own source

5. DISCUSSION AND CONCLUSIONS

The coverage of mental health issues in digital media is very complex, and a behaviour pattern that represents all types of newspapers cannot be established. However, the content analysis carried out in this work indicates that, although the presence of negative news about mental health is not a majority, the fact that they remain significant and present in the media sphere, contribute to the creation of stigma. The volume of positive news (those that, in addition to using correct language, its central theme are the group's defence actions, scientific advances, treatments and integration of people with mental illness) represented 21% (79 news) of the corpus analysed (40% if only the studied stories are taken into account). This figure is higher than the negative ones (those that relate mental illness to dangerousness, violence, unpredictability or dependence), which represented 14% (50 articles, 26% if only the analysed news are taken into account), but if we add them to those that have used the terms of mental health as a metaphor, that is, those cases in which, for example, schizophrenia has been used as a synonym of incoherence, which accounts for 18% of cases, we find ourselves with a considerable proportion, which accounts for 32% of the sample analysed. These results show an improvement in the percentage of positive

news about mental health in relation to the article by Aragonès *et al.* (2014) in which only 26% of the codified texts had a positive tone and a decrease in the metaphorical use of terms related to mental health (18% in this article versus 48% found by Aragonès *et al.* 2014). However, this work indicates an increase in the negative treatment of mental health concerning the said article, in which the presence of a negative tone classified 19 % of the news.

Although the present work has not been a strict follow-up of the work of Aragonès *et al.* (2014) and, therefore, a direct comparison cannot be made, it does seem to indicate that, in spite of all the approved deontological codes and the style guides recommended by mental health associations, the press continues to contribute to the stigma that minority groups suffer as a consequence of the reinforcement of these ideas, both in the news related to some violent, aggressive or uncontrolled act made by a person with a mental illness and in the use of the name of mental illnesses to designate behaviours of this type (Miller, 2007; McCartney, 2011; Aragonès *et al.*, 2014). It could be inferred that the use of metaphors is precisely those that reinforce the stigma. It is necessary to emphasize in this case that the diffusion of negative stereotypes affects to a greater extent in the determination of false beliefs and prejudices. Not only is it necessary to stop producing negative news and images, but, besides, we must make the positive visible and attract attention to it. In this way, apart from avoiding harm, it contributes to the reconstruction and regeneration of those stereotypes that both affect and offend the group (Clement *et al.* 2018; Hasan & Thornicroft, 2018).

Regarding Facebook, the pages with negative content on mental health accounted for 2% of the sample. Perhaps this is also due to the controls available to Facebook, both at the automatic level (detection of violent scenes with content moderators) and at the manual level (complaints from other users about inappropriate content). As for the positive pages, those that present and promote the integration of people with mental illness into activities, which build a standardizing discourse with which to combat stigma, represented 5% of the total sample analysed. This result is contrary to the studies that have been carried out recently (Fergie, Hunt & Hilton, 2016; Berryman, Ferguson & Negy, 2017; Hearn, 2017; Radovic, *et al.* 2017; O'Reilly *et al.*, 2018), in which social networks are analysed from a positive point of view by the support for adolescents and young people with mental health problems. Pardo Sainz (2017) affirmed that in social networks, it was more common to find positive images about mental health, perhaps this result is due to also integrating other social networks like Instagram in the study. Likewise, searching about mental health in public pages limits the experience consulted because it leaves aside the possible normalising 'acccount' of people with mental illness in their personal digital space. The most relevant fact was that the search of pages on Facebook about mental health, with the descriptors previously exposed, showed a 61% percentage of 'noise'. This data was obtained from the sum of those pages in which, simply, they contain words related to mental health, but they have no relation (heterogeneous, 33%), and those that use the terms to refer to an artistic facet (28 %).

To conclude, the study of the data from digital media and from the Facebook pages, has shown two critical scenarios to intervene from public policies. The first is related to the media scene, in the construction of the event through the journalistic stories, on which we must continue working to minimise the stigma, as proposed by Hasan & Thornicroft (2018). For this, it would be advisable to continue with awareness programmes and activities for the eradication of stigma through

citizen and media campaigns via the different patient associations and the health administration. The second scenario is related to social networks; in the case of this research, it was restricted to Facebook. Mental health has been poorly represented in this study. There was an excess of noise, too many allusions, and use of metaphor, not always fortunate, but, in any case,the use of the social network to support adolescents and young people with mental health problems could shift the results of future research. The promotion of mental health through social networks could be carried out by the health administration to understand the psychological anguish of adolescents and be able to help with a wide range of services (Singleton, Abeles & Smith, 2016).

As aforementioned, and despite the proximity of the adoption of the resolution 32/8, on mental health and human rights, the negative portrayal of mental health in digital media and Facebook during the period of study was not in the majority, but it still remained significant. The impact of those images have an important weight in the construction of the collective imaginary. It is, therefore, essential to continue working on awareness campaigns and to monitor social media.

6. REFERENCES

Aragonès, E., López-Muntaner, J., Ceruelo, S., & Basora, J. (2014). Reinforcing stigmatization: coverage of mental illness in Spanish newspapers. *Journal of Health Communication*, 19(11), 1248-1258.

Ayers, S. L., & Kronenfeld, J. J. (2007). Chronic illness and health-seeking information on the Internet. *Health*: 11(3), 327-347.

Barry, C. T., Sidoti, C. L., Briggs, S. M., Reiter, S. R., & Lindsey, R. A. (2017). Adolescent social media use and mental health from adolescent and parent perspectives. *Journal of Adolescence*, 61, 1-11.

Berger, M., Wagner, T. H., & Baker, L. C. (2005). Internet use and stigmatized illness. *Social Science & Medicine*, 61(8), 1821-1827.

Berryman, C., Ferguson, C. J., & Negy, C. (2017). Social media use and mental health among young adults. *Psychiatric Quarterly*, 1-8.

Bowen, M. L. (2016). Stigma: Content analysis of the representation of people with personality disorder in the UK popular press, 2001-2012. *International Journal of Mental Health Nursing*, 25(6), 598-605.

Brailovskaia, J., & Margraf, J. (2018). What does media use reveal about personality and mental health? An exploratory investigation among German students. *PloS one*, 13(1), e0191810.

Brodie, M., Flournoy, R. E., Altman, D. E., Blendon, R. J., Benson, J. M., & Rosenbaum, M. D. (2000). Health information, the Internet, and the digital divide. *Health Affairs*, 19(6), 255-265

Brusilovskiy, E., Townley, G., Snethen, G., & Salzer, M. S. (2016). Social media use, community participation and psychological well-being among individuals with serious mental illnesses. *Computers in Human Behavior*, 65, 232-240.

Cabrera Arriaga, T., Luna, F., Adnán, J., Hernández Flores, S., Iniestra Ayllon, O. F., & Solís Álvarez, A. M. (2015). Escrutinio de depresión y ansiedad en Twitter a través de un programa de análisis de palabras. *Investigación en educación médica*, 4(13), 16-21.

Calo, L., & Băban, A. (2013). The Stigma of Schizophrenia in Romanian Newspapers: a Content Analysis Approach. *Romanian Sociology/Sociologie Românească*, 11(3).

Clayman, M. L., Manganello, J. A., Viswanath, K., Hesse, B. W., & Arora, N. K. (2010). Providing health messages to Hispanics/Latinos: understanding the importance of language, trust in health information sources, and media use. *Journal of Health Communication*, 15(sup3), 252-263.

Confederación Salud Mental España (2018). *Informe sobre el estado de los derechos humanos de las personas con trastornos mentales en España 2017*

Corrigan, P. W., Watson, A. C., Gracia, G., Slopen, N., Rasinski, K., & Hall, L. L. (2005). Newspaper stories as measures of structural stigma. *Psychiatric services*, 56(5), 551-556.

Corrigan, P. W., Powell, K. J., & Michaels, P. J. (2013). The effects of news stories on the stigma of mental illness. *The Journal of Nervous and Mental Disease*, 201(3), 179-182.

De Calheiros Velozo, J., & Stauder, J. E. (2018). Exploring social media use as a composite construct to understand its relation to mental health: A pilot study on adolescents. *Children and Youth Services Review*, 91, 398-402.

Dickerson, S., Reinhart, A. M., Feeley, T. H., Bidani, R., Rich, E., Garg, V. K., & Hershey, C. O. (2004). Patient Internet use for health information at three urban primary care clinics. *Journal of the American Medical Informatics Association*, 11(6), 499-504.

Fergie, G., Hunt, K., & Hilton, S. (2016). Social media as a space for support: young adults' perspectives on producing and consuming user-generated content about diabetes and mental health. *Social Science & Medicine*, 170, 46-54.

Frost, R. L., & Rickwood, D. J. (2017). A systematic review of the mental health outcomes associated with Facebook use. *Computers in Human Behavior*, 76, 576-600.

Ghanem, S. I., & McCombs, M. (2001). The convergence of agenda setting and framing. In S. D. Reese, O. H. Gandy, & Jr., A. E. Grant (Eds.), *Framing public life. Perspectives on Media and Our Understanding of the Social World* (pp. 83-98). New York, NY: Routledge.

Gomez, J. M. (2014, October). Language technologies for suicide prevention in social media. In M. Hernández, & J. J. Aguiar Pontes (Eds.), Proceedings of the Workshop on Natural Language Processing in the *5th Information Systems Research Working Days (JISIC)* (pp. 21-29). Quito, Ecuador: Association for Computational Linguistics

Hardy, B. W., & Castonguay, J. (2018). The moderating role of age in the relationship between social media use and mental well-being: An analysis of the 2016 General Social Survey. *Computers in Human Behavior*, 85, 282-290.

Hasan, M. T., & Thornicroft, G. (2018). Mass media campaigns to reduce mental health stigma in Bangladesh. *The Lancet Psychiatry*, 5(8), 616.

Hearn, G. K. (2017). Commentary to: Fergie, Hunt and Hilton "Social media as a space for support: Young adults' perspectives on user-generated content about diabetes and mental health". *Social Science & Medicine*, 174, 86-88.

Hesse, B. W., Nelson, D. E., Kreps, G. L., Croyle, R. T., Arora, N. K., Rimer, B. K., & Viswanath, K. (2005). Trust and sources of health information: the impact of the Internet and its implications for health care providers: findings from the first Health Information National Trends Survey. *Archives of internal medicine*, 165(22), 2618-2624.

Jelenchick, L. A., Eickhoff, J. C., & Moreno, M. A. (2013). "Facebook depression?" Social networking site use and depression in older adolescents. *Journal of Adolescent Health*, 52(1), 128-130.

Johnson, T. J. (2013). *Agenda setting in a 2.0 world: New agendas in communication*. New York, NY: Routledge.

Klin, A., & Lemish, D. (2008). Mental disorders stigma in the media: Review of studies on production, content, and influences. *Journal of Health Communication*, 13(5), 434-449.

Lau, K. M., Hou, W. K., Hall, B. J., Canetti, D., Ng, S. M., Lam, A. I. F., & Hobfoll, S. E. (2016). Social media and mental health in democracy movement in Hong Kong: A population-based study. *Computers in Human Behavior*, 64, 656-662.

MacLean, A., Sweeting, H., Walker, L., Patterson, C., Räisänen, U., & Hunt, K. (2015). "It's not healthy and it's decidedly not masculine": a media analysis of UK newspaper representations of eating disorders in males. *BMJ open*, 5(5), e007468.

Martín Pérez, A.C.; Cano Bravo, F., & Moreno Antequera, D. (2015, October). Nuevas formas de comunicación con enfermos mentales: redes sociales. Paper presented at the *II Conferencia Internacional de Comunicación en Salud*. Universidad Carlos III de Madrid, Getafe, Spain.

Mateo Aguilar, E. (2013). Estudio sobre el trato del colectivo con trastornos mentales de los periódicos El País y El Mundo, desde 1997 a 2011. *Revista Española de Comunicación en Salud*, 4(2), 83-92.

McCartney, M. (2011). Anorexia in young children: press coverage was flawed. *BMJ: British Medical Journal (Online)*, 343.

McSherry, B., & Waddington, L. (2020). The Convention on the Rights of Persons with Disabilities and the challenge to treatment without consent of individuals with psychosocial disabilities. In Hagenaars, P.; Plavši□, M; Sveaass, N.; Wagner, U.; Wainwright, T. (Eds.). *Human Rights Education for Psychologists*. U.K.: Routledge, 165-178.

Miller, G. (2007). Mental health and the mass media: room for improvement. *The Lancet*, 370(9592), 1015-1016.

Muñoz, M.; Pérez-Santos, E.; Crespo, M;Guillén, A. I., & Izquierdo, S. (2011). La enfermedad mental en los medios de comunicación: un estudio empírico en prensa escrita, radio y televisión. *Clínica y Salud*, 22(2), 157-173.

Murphy, N. A., Fatoye, F., & Wibberley, C. (2013). The changing face of newspaper representations of the mentally ill. *Journal of Mental Health*, 22(3), 271-282.

National Science Foundation. (2018). *Science and Engineering Indicators 2018*. Retrieved from: https://www.nsf.gov/statistics/2018/nsb20181/

Navarro Moreno, J. A., & Olmo López, A. (2015). La imagen del enfermo mental en los medios de comunicación: análisis de los informativos de Canal Sur Televisión y la actividad de los gabinetes de prensa de las asociaciones de enfermos mentales. In L. A. Guadarrama Rico, J. C. Suárez Villegas, & M. M. González Jiménez (Eds.), *Desafíos éticos de la comunicación en la era digital: III Congreso Internacional de Ética de la Comunicación, libro de actas* (pp. 296-308). Madrid, Spain.

O'Reilly, M., Dogra, N., Hughes, J., Reilly, P., George, R., & Whiteman, N. (2018). Potential of social media in promoting mental health in adolescents. *Health Promotion International*, day056.

Pardo Sainz, R. (2017). Enfermedad mental, fotoperiodismo e Internet: hacia una visión más humana y normalizadora. *adComunica*, 13, 83-109.

Pérez Pérez, M. L. (2011). *Estigma, enfermedad mental y medios de comunicación*. Sevilla: Consejo Audiovisual de Andalucía. Retrieved from http://www.consejoaudiovisualdeandalucia.es/sites/default/files/evento/pdf/1112/pagina_web__estigma_e__mental_y_medios.pdf

Pucho Esparza, D. (2007). Medios de comunicación, salud mental y locura. *Psiquiatría.com*, 11. Retrieved from: https://psiquiatria.com/atprimaria_y_sm/medios-de-comunicacion-salud-mental-y-locura/

Quintero Johnson, J. M., & Miller, B. (2016). When Women "Snap": The Use of Mental Illness to Contextualize Women's Acts of Violence in Contemporary Popular Media. *Women's Studies in Communication*, 39(2), 211-227.

Radovic, A., Gmelin, T., Stein, B. D., & Miller, E. (2017). Depressed adolescents' positive and negative use of social media. *Journal of Adolescence*, 55, 5-15.

Reavley, N. J., Jorm, A. F., & Morgan, A. J. (2016). Beliefs about dangerousness of people with mental health problems: the role of media reports and personal exposure to threat or harm. *Social Psychiatry and Psychiatric Epidemiology*, 51(9), 1257-1264.

Revuelta, G. (2006). Salud y medios de comunicación en España. *Gaceta Sanitaria*, 20, 203-208.

Revuelta, G., de Semir, V., Armengou, C., Suárez Álvarez, C., Muñoz, G., & Esteban Bonavia, J. (2017). *La comunicación pública de la salud mental. Informe Quiral 2016. Medicina, comunicación y sociedad*. Barcelona: Fundació Vilacasas. Retrieved from: http://www.fundaciovilacasas.com/ca/informe-quiral.

Rhydderch, D., Krooupa, A. M., Shefer, G., Goulden, R., Williams, P., Thornicroft, A., & Henderson, C. (2016). Changes in newspaper coverage of mental illness from 2008 to 2014 in England. *Acta Psychiatrica Scandinavica*, 134(S446), 45-52.

Roberts, E., Bourne, R., & Basden, S. (2013). The representation of mental illness in Bermudian print media, 1991–2011. *Psychiatric Services*, 64(4), 388-391.

Robinson, J., Cox, G., Bailey, E., Hetrick, S., Rodrigues, M., Fisher, S., & Herrman, H. (2016). Social media and suicide prevention: a systematic review. *Early Intervention in Psychiatry*, 10(2), 103-121.

Singleton, A., Abeles, P., & Smith, I. C. (2016). Online social networking and psychological experiences: the perceptions of young people with mental health difficulties. *Computers in Human Behavior*, 61, 394-403.

Special Eurobarometer 224. (2014). *Europeans, Science & Technology*. European Commission.

Special Eurobarometer 345. (2010). *Mental Health*. European Commission.

Vengut-Climent, E. (2018) Newspaper portrayal of mental illness in England, Canada, Portugal, Spain and Japan. *Revista Española de Comunicación en Salud*, 9(2), 176-187.

Wade, S., & Schramm, W. (1969). The mass media as sources of public affairs, science, and health knowledge. *Public Opinion Quarterly*, 33(2), 197-209.

Wahl, O. F. (1992). Mass media images of mental illness: A review of the literature. *Journal of Community Psychology*, 20(4), 343-352.

Wahl, O. F. (2003). News media portrayal of mental illness: Implications for public policy. *American Behavioral Scientist*, 46(12), 1594-1600.

Whitley, R., Adeponle, A. & Miller, A. R. (2015). Comparing gendered and generic representations of mental illness in Canadian newspapers: an exploration of the chivalry hypothesis. *Social Psychiatry and Psychiatric Epidemiology*, 50(2), 325-333.