How to cite this article in bibliographies / References
C Costa-Sánchez, M Túñez-López, JJ Videla-Rodríguez (2016): "Spanish hospitals in the social web. The management of Facebook and Twitter by Hospital Sant Joan de Déu (Barcelona)". *Revista Latina de Comunicación Social*, 71, pp. 1.108 to 1.130.
http://www.revistalatinacs.org/071/paper/1137/57-en.html
DOI: 10.4185/RLCS-2016-1137en

Spanish hospitals in the social web. The management of Facebook and Twitter by Hospital Sant Joan de Déu (Barcelona)

C Costa-Sánchez [CV] [ORCID] [GS] School of Communication Sciences. Universidade da Coruña (UDC) / University of A Coruña, Spain - carmen.costa@udc.es

M Túñez-López [CV] [ORCID] [GS] School of Communication Sciences. Universidade de Santiago de Compostela (USC) / University of Santiago de Compostela, Spain - miguel.tunez@usc.es

JJ Videla-Rodríguez [CV] [ORCID] [GS] School of Communication Sciences. Universidade da Coruña (UDC) / University of A Coruña, Spain - videla@udc.es

Abstract
Introduction. This article examines the presence of the best-ranked Spanish hospitals in the participative Web and delves into this subject matter based on the case study of Hospital Sant Joan de Déu (Barcelona). The objective is twofold: to diagnose the general adoption of social media and to assess the use of Facebook and Twitter by one of the most prominent hospitals in Spain. **Methods.** The study is based on the combination of a transversal descriptive and observational study with the content analysis of the case study. **Results and conclusions**. Only 50% of Spanish hospitals use Facebook, Twitter and YouTube as communication channels. This percentage decreases to less than 30% for the rest of social media. The hospital under analysis acts as a health educator in its main social networks 2.0. The posts with the greatest social impact are those related to sensitive issues, as well as to individual and social solidarity projects that involve the own network of the agent in question.

Keywords
Hospital communication; Web 2.0; Hospitals; Health communication; Facebook; Twitter.

Contents

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

1. State of the art review. Hospitals in the Web 2.0

Hospitals are health institutions dedicated to assist, research and, in some cases, teach and educating on medical issues and healthy life styles (Costa-Sánchez, 2011).
As an organisation, a hospital should adapt itself to the changes that take place around it, which will be better achieved if it incorporates the communication function with professionalism and transversality (Costa-Sánchez, 2009). As González Borjas (2004) explains, it was in the 1990s when Spanish public hospitals began to incorporate communication management among their priorities to reach citizens more directly and, at the same time, enjoy the benefits of having a positive corporate image.

Under the current environment, where the Internet and the tools and applications of the Web 2.0 are part of our everyday life, hospitals can interact with their audiences through these new channels and to strengthen their role as agents of health communication on the web (Costa-Sánchez, 2012; Pacanowski & Medina-Aguerrebere, 2011). Users are getting used to resort to the Internet to consult information about health (ONTSI, 2012; Van De Belt *et al*., 2013). From eating habits to specific symptoms, multiple online sources provide health-related content. The controversy revolves around the credibility of such sources, and for this reason different systems of accreditation are being developed for websites and apps to help citizens to identify the sources they can trust (Sánchez Bocanegra & Sánchez Laguna, 2012; Fernández Silano, 2013). So far, the patient is the one who takes the initiative and goes to the hospital to obtain information. Now, in the context of health 2.0, hospitals can knock at users' doors to teach them how to take care of themselves (Custodio-López, 2011). According to the Lalonde system, lifestyle factors are the most crucial in the state of health at the individual and collective levels in developed countries (Colomer & Álvarez-Dardet, 2006). This implies that health-related communication activities are very important to change harmful habits and behaviours (Schiavo, 2007; Díaz, 2012; Bates, 2014).

However, recent studies have revealed that a significant percentage of Spanish hospitals do not have websites and those who do, are not optimising them as platforms of information of interest for their audiences. The study of Arencibia-Jimenez & Aibar-Remón (2007), which analysed the websites of different samples of Spanish and American hospitals, indicated that most hospitals in Spain do not have a website and that of those who do, only few provide useful information for users or patients. Díaz Cuenca (2007) offers a similar diagnosis, as his study found out that not all the important hospitals from provincial capital cities had a website. The study of Doblas Arrebola (2008)

concluded that the websites of most hospitals are managed by non-professional staff and do not consider how information is transmitted and do not have quality criteria. Calvo-Calvo (2014) points out that the quality of the websites of large Spanish hospitals is low.

With regards to the use of social media, according to Van De Belt *et al*. (2012), the group of hospitals from Western European countries that employ such tools is reduced and more research is needed in this regard. According to Vanzetta *et al.* (2014), in a study carried out in Italy, less than 8% of public local hospitals and health authorities have accounts or profiles in social media. The studies of Griffis *et al*. (2014) and Richter *et al*. (2014) on American hospitals, indicate that the hospitals with more activity in social media are large private and non-profit, urban hospitals. The research of Huang and Dunbar (2013) concludes that Facebook and Twitter generate a low interaction when used as marketing tools. Farabough's analysis (2013) points out that the posts that generate higher engagement are those about the stories of patients.
According to Fernández-Luque & Bau (2015), health organisations are belatedly joining this dynamic and large institutions and health agencies still have much to do educate on health and to open up more direct lines of communication with users (in Gabarrón & Fernández-Luque, 2012). The work of Bermúdez-Tamayo *et al*. (2013) found out that in Spain the largest centres use social networks more frequently, as well as in the public centres (19%, $p<0.01$) in comparison to their private counterparts.

The web and online platforms of hospital have become their institutional delegations in the Internet (Ruiz Granja, 2015). In addition, social networks offer the possibility to be where the public is and to talk directly to it. Of course, communicative intent, objectives, strategy and contents are needed (Medina-Aguerrebere, 2012).

This article provides a review of the presence of best-ranked Spanish hospitals in social media and an examination of the use of Facebook and Twitter as communication channels by Hospital Sant Joan de Déu (Barcelona).

2. Methods

The article starts with a transversal descriptive and observational study. The universe and sample of study are Spanish hospitals, both public and private, with the best reputation to determine whether they are also those who have greater presence on the digital stage. This ranking comes from the 2015 Health-centres reputation ranking (http://merco.info/es/monitor-reputacion-sanitaria-hospitales), which is the main source of reference in the sector in Spain. The population under study is composed of the 100 Spanish hospitals that are included in the aforementioned ranking, of which 69 are public and 31 private.

A first observational analysis was performed to find out what online and 2.0 communication channels were used by these hospitals, especially: the corporate website, Facebook, Twitter, Google+, YouTube, Vimeo, LinkedIn, Blog and others. The only variable under analysis is presence/absence because it is considered to be the indicator of communicative intention in the Web 2.0, as well as the lack of recent national studies in Spain in this regard. This stage of research was carried out from February to March 2016.

After diagnosing and reviewing the whole situation, the case of the Hospital Sant Joan de Déu (Barcelona) stands out because it has the greatest presence in the Web 2.0 and, moreover, because it is the only one that has incorporated the figures e-health and health 2.0 directors into its organisation chart from 2010, which makes it the object of study of the second stage of this research work. In order to examine in depth its communication strategy in social media, we analysed its use of the leading two tools 2.0 among Spanish hospitals, according to the first stage of research: Twitter and Facebook.

The objective is to identify the communicative intention of the use of the tool, the mode in which the strategy is implemented and the responses generated among users. To this end we performed content analysis adapted to the possibilities of the channel. The analysis covered a three-month period (February, April and June 2016). The same period was chosen to analyse Twitter and Facebook to facilitate the comparative analysis. We examined every other month to prevent possible distortions arising from specific events.

To gain insight into the strategy on Twitter, we examined:

- The tweets/day and tweets/month ratios.
- General topic.
- Specific topic.
- Use of audiovisual resources (picture / video).
- Origin of information.
- Language.
- Retweets of other profiles.
- Responses from users*: retweets* and *likes*.

To gain insight into the strategy on Facebook, we examined:

- The posts/day and posts/month ratios.
- General topic.
- Specific topic.
- Use of audiovisual resources (picture / video).
- Origin of information.
- Responses from users: comments, likes and shares.

Several of these variables have been interrelated in the corresponding descriptive results section.

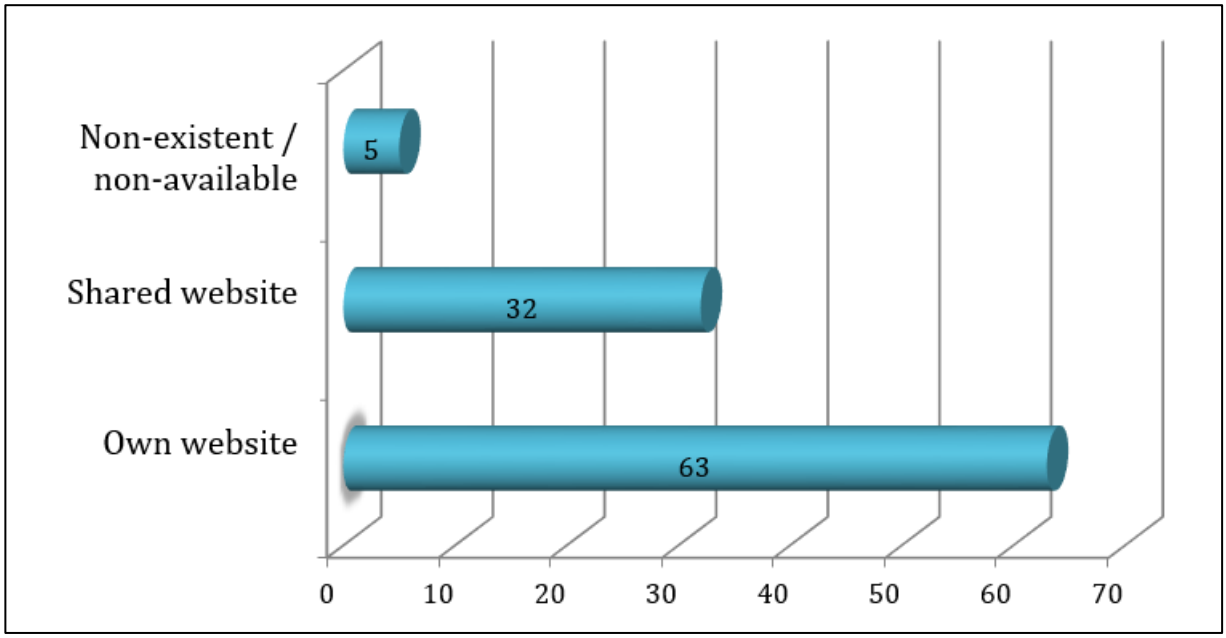
3. Results

3.1. General evaluation of the situation

Most best-ranked Spanish hospitals have a website, except 5% of them, all of which are public hospitals. Of the 95% who have a website, 32% have a shared website, i.e., their space is either part of the website of their Hospital Group (this is the case of private hospitals, the Qhirón group and HM Hospitales), or their space is the website of the health area of the integrated care management, which includes a space for the hospital (e.g. the website of the integrated area of *Talavera de la Reina* for the General Hospital *Nuestra Señora del Prado* and the website of *Murcia Salud* for the Clinical

University Hospital *Virgen de la Arrixaca*). It is important to mention the case of the hospitals of the Community of Madrid, all of which employ the same web template, which ensures the uniformity in terms of style and presentation of Madrid's public hospitals network.

Figure 1. Types of websites



Source: Authors' own creation

With regards to the use of tools 2.0, 50% of the best-ranked Spanish hospitals are not present on Facebook. 23% have a shared channel, either because it is the channel of the Hospital group (again, in the case of private hospitals), or because it is the channel of the health section where the hospital is located. The remaining 27% have an independent Facebook page.

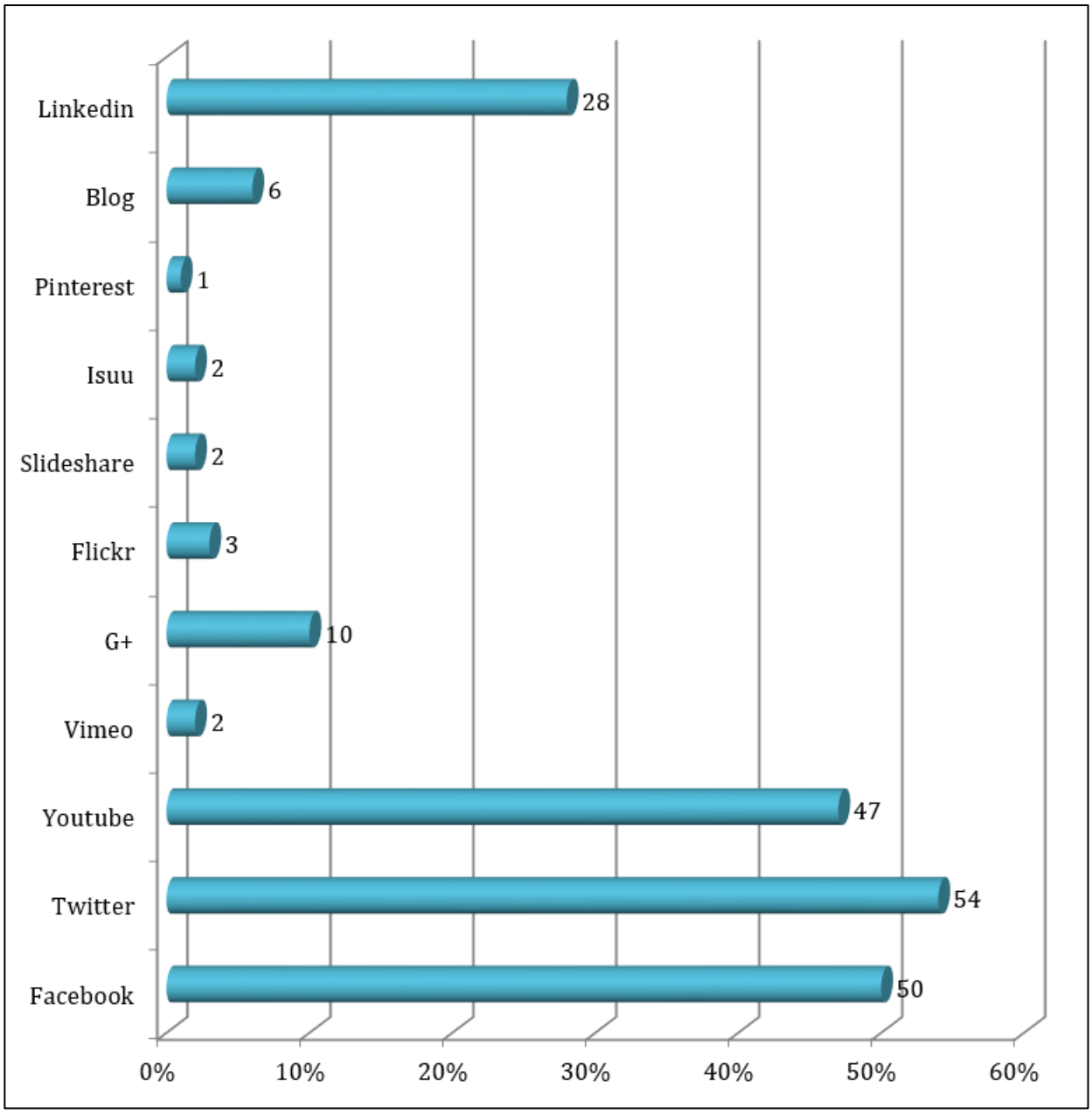
Regarding the use of Twitter, the percentages are similar. Only 26% of the best-ranked Spanish hospitals have a Twitter account, 28% have a shared account and the remaining 46% do not have presence in the microblogging network.

In the use of YouTube, the percentage of presence is lower. Only 20% of the sample of hospitals use this audiovisual channel, while 53% do not use it. The remaining 27% uses this channel in a shared basis as a tool of communication not only for the hospital but also for the business group or the health area.

Only 28% of the sample of hospitals have an active page in LinkedIn. Only 7% of the sample of hospitals is present in Google+. 3% is on Flickr, 2% in Slideshare and in Issuu, and 1% on Pinterest. Only 6% of the analysed hospitals have an institutional blog.

Therefore, Twitter, Facebook and YouTube are, in that order, the social networks where the presence of Spanish hospitals is greater.

Figure 2. Presence of the sample of hospitals in social media

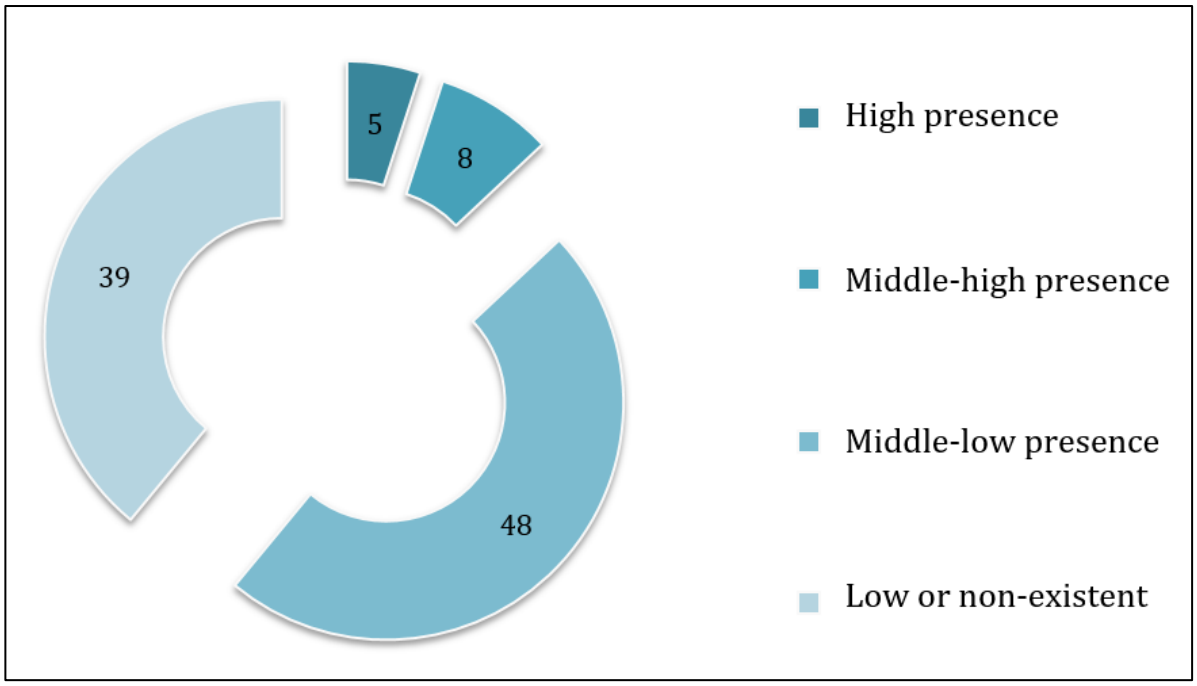


Source: Authors' own creation

After assigning a numeric value (1: presence; 0: absence and 0.5: shared presence) to each of the most important online options (website, Facebook, Twitter, YouTube, LinkedIn, Google+ and corporate blog), the highest score was obtained by Hospital Sant Joan de Déu (Barcelona), which uses all the above-mentioned networks. This hospital is followed by two public hospitals and a private one, both in the main positions of corporate reputation. In particular, Barcelona's Hospital Clinic obtained a score of six, just like Valencia's La Fe Hospital and Navarra's University Clinic

(CUN). They are the most prominent cases, which also coincide with positions of excellence in the corporate ranking, with the exception of Navarra's University Clinic, which is of public ownership. However, in the reverse order, a better position in the reputational ranking is not guarantee of greater use of social media. As an example, La Paz Hospital, first in corporate reputation (10,000 points), has a score of 2.5 in social media. In the public-private comparative partnerships, the presence of Spanish public hospitals is of 2.08. The average ranking of private hospitals is 2.46. The global balance suggests that there is a reduced or non-existent presence against a reduced 13% of high or mid-high presence in the new channels 2.0.

Figure 3. Distribution of hospitals according to their level of presence on social media (0 a 7 media)



Source: Authors' own creation

It should be noted that the high degree of autonomy of units, areas and hospital services may lead hospital departments and areas to have an online space although the hospital does not. The reality of hospitals is complex and combines the collaboration of professionals and very different areas of activity, so communication initiatives can come from other agents and have their own utility. The communications department of hospitals should ensure that the centre has a positive image given that, for all practical purposes, they are representing their hospitals in the digital arena.

We can highlight several examples in this regard. The pharmaceutical external patient care unit (UFPE) of the pharmacy service of Valencia's *La Fe* Polytechnic and University Hospital has a full blog that aims to disseminate interesting pharmaceutical information, health tips and news among patients and the general population, and to provide a forum for discussion and opinion among professionals and patients (http://ufpelafe.blogspot.com.es). At the same time, the hospital has

accounts on Facebook, Twitter, YouTube and Pinterest, so the possibilities of communication multiply, creating channels to report and discuss on the use of drugs on different platforms.

Hospital Manises (Valencia) has a network of blogs (http://www.hospitalmanises.es/red_de_blogs_hospital_de_manises.html) classified by medical specialties: the inflammatory bowel disease blog, children Neurorehabilitation blog and the celiac disease blog. The Donostia University Hospital does not have a YouTube Channel, but its neurosurgery service does (https://www.youtube.com/user/neurocirugiadonostia) and provides videos on various neurological disorders. The *Virgen del Rocio* General Hospital (Seville) is not present on Twitter, but its emergency department is (https://twitter.com/urghospgral).

Another finding of the research is that many public hospitals from Madrid are not present in Twitter, but that their workers have created Twitter accounts with the name of the hospital to protest the cuts. This represents an example of the strategy of silence that may led other voices to take up the place of the institution. This is the case of *12 de Octubre* Hospital, the Gregorio Marañón Hospital and the Queen's Hospital.

Image 1. Twitter page of *12 de Octubre Hospital* (Madrid).

Source: @hospital12Oct

3.2. Case study: Hospital Sant Joan de Déu (Barcelona)

The Hospital Sant Joan de Déu has been identified in the first stage of this research as the Spanish hospital most present in social media, in addition to being known for having incorporated in 2010 the position of *E-health* and *Salud 2.0* directors in the organisation chart. The Hospital Sant Joan de Déu is a maternal and child health institution founded in the city of Barcelona, although its facilities are located in the municipality of Esplugues de Llobregat since 1973. It is a privately-owned centre

concerted by the Catalan Health Service, which belongs to the Hospitaller Order of St. John of God, one of the international non-profit cooperation organisations that provides care through hospitals, health centres, social services and religious communities.

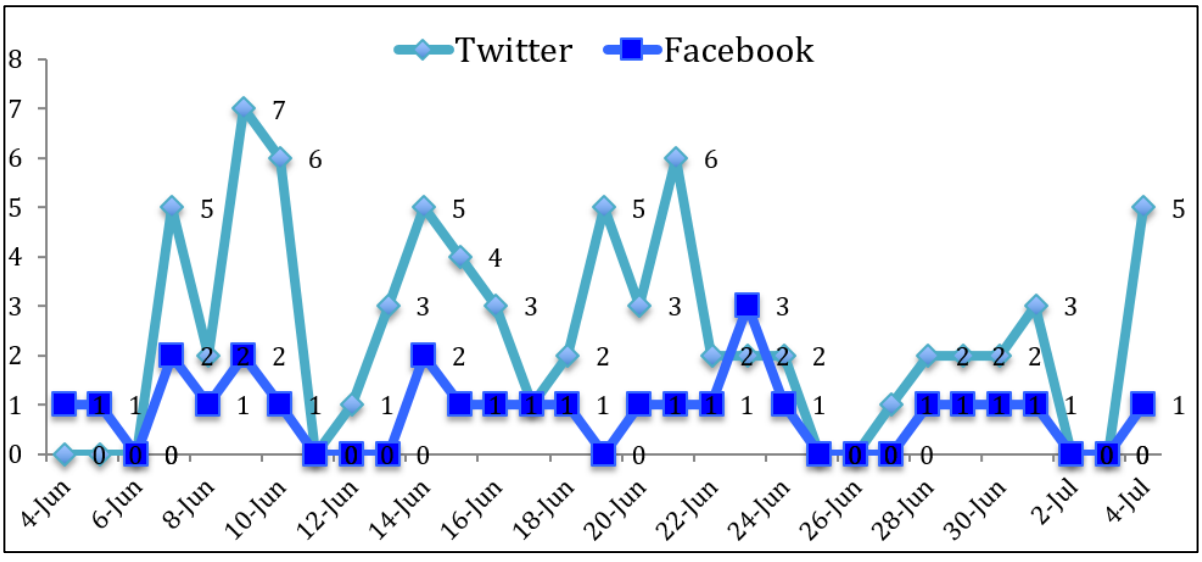
As a hospital specialised in maternal and child health-care, its users are basically babies, children and teens (together with their parents) and pregnant women.
The hospital has a wide presence in the participatory Web. In addition to its website, the entity has profiles and generates content in a wide variety of applications 2.0: Wikipedia, Facebook, Twitter, Google+, LinkedIn, YouTube, Vimeo, Issuu, Pinterest, Flickr, Slideshare and Blogs. All of them are linked in from the website of the hospital (http://www.sjdhospitalbarcelona.org/es/siguenos-redes-sociales).

3.2.1. Temporary strategy on Twitter and Facebook

The hospital opened its Twitter account in May 2010, it follows 285 Twitter accounts and has 11,000 followers. Throughout the three months of analysis, the Hospital's Twitter account posted 196 tweets, an average of 65 tweets per month, being June the most prolific month and February the least prolific (which has one day less of analysis, given than it was a leap year) and an average of 2.2 tweets per day. The dynamics of publication alternate days of high activity (with a maximum of 7 tweets) with days of low activity (an average of 8 days without posts each month). Production peaks are reached around the first 8-10 days of each month.

On Facebook page, the hospital has been visited by nearly 27,000 people and has more than 4,000 followers. The total number of *posts* made throughout the period of study is 79, an average of 26.3 posts per month, being April the month with most content generation (29 posts, against February with 24) and an average of 0.9 posts per day. The volume of posts ranges from 0 to 2 for almost all the days analysed, with the exception of one day, when three contents were posted: 23 June, 2016.

Figure 4. Evolution of amount of posts per day (June 2016)

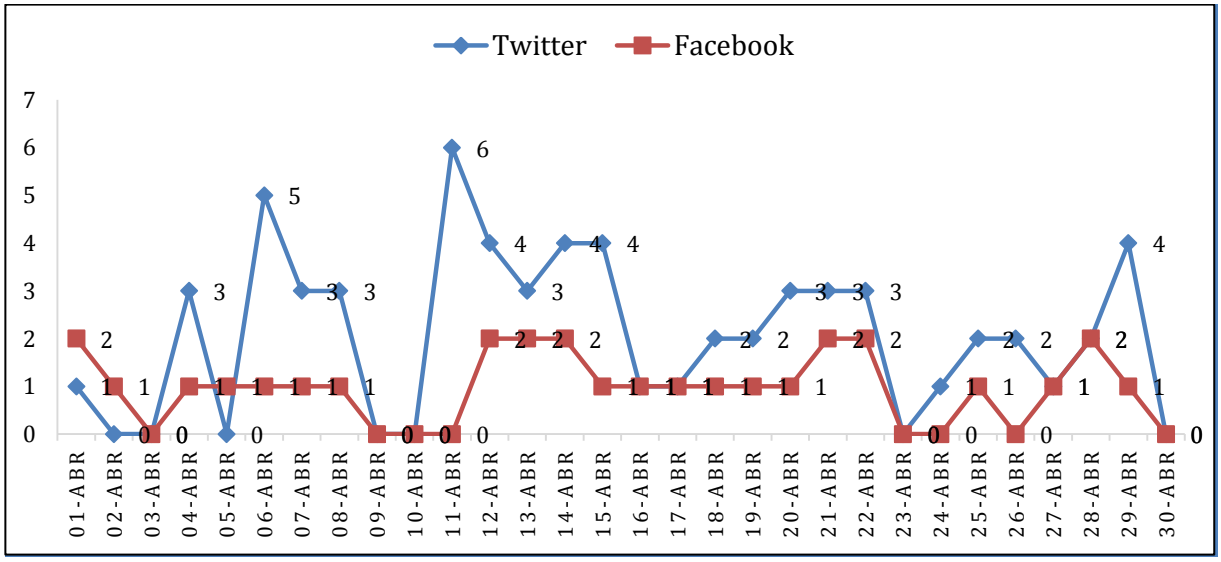


Source: Authors' own creation

Production patterns in both social networks flow in a parallel manner in June and early July 2016, when the changes in production are virtually symmetrical.

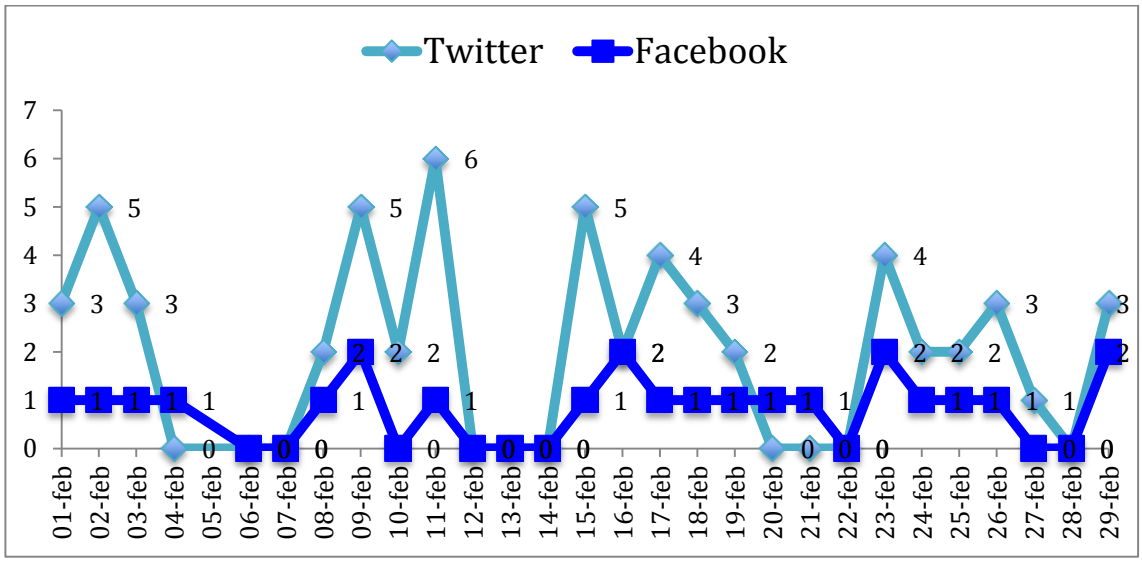
The analysis indicates that in April the trend is once again balanced, especially mimetic in the second half of the month, while in the first half there are some differences that reveal minor statistical variations (production peaks and declines) in the use of Facebook and Twitter.

Figure 5. Evolution of amount of posts per day (April 2016)



Source: Authors' own creation

Figure 6. Evolution of amount of posts per day (February 2016)



Source: Authors' own creation

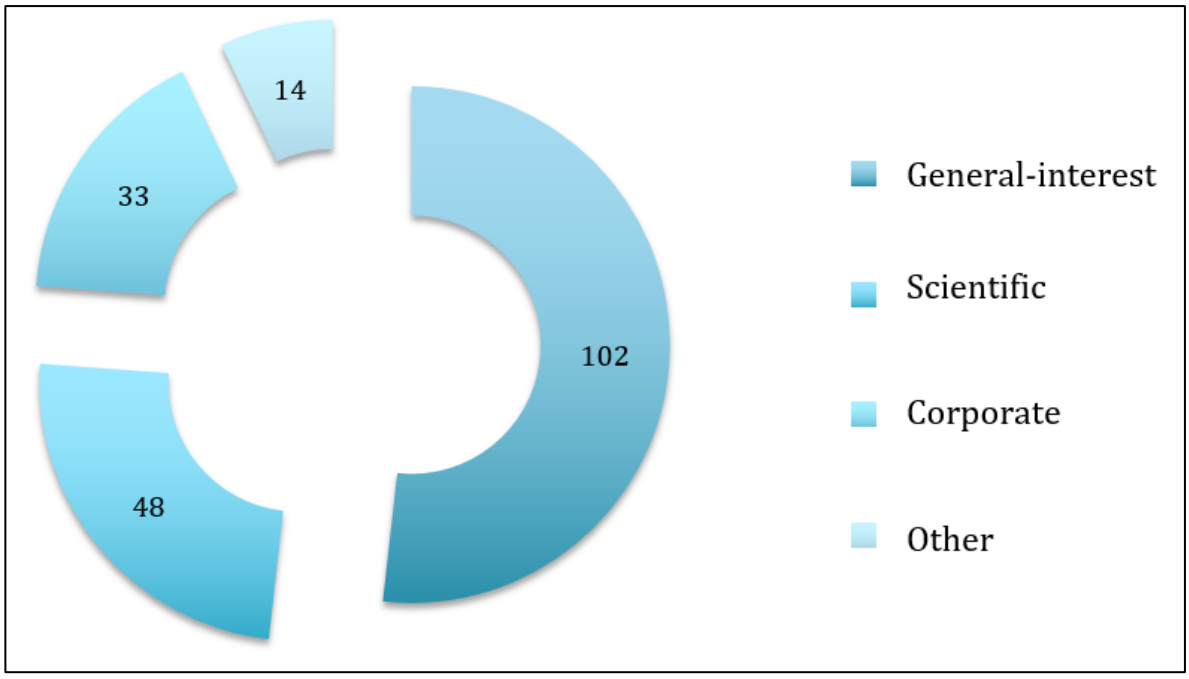
February confirms that the production drops on Twitter also occur on Facebook with brief periods of 2 to 3 days where the activity falls. While Facebook experiences a more stable trend (1 post per day with some increases to 2 posts or declines to 0), the dynamics on Twitter alternate cycles of production with peaks of 6 tweets/ retweets and brief periods of inactivity.

The few cases in which production on Facebook s higher than that on Twitter can be due to a temporary postponement of content on one network with respect to the other or due to certain contents that have been given a space on Facebook but not on the microblogging network (see the analysis of thematic content of both networks).

3.2.2. Content strategy on Twitter

Most of the publications (tweets or retweets) of the hospital have a health information or educational purpose. The next most common purpose is not corporative as one might anticipate, but scientific, i.e., they disseminate scientific works in the area of paediatrics with international impact. The final purpose is corporate communication or public relations, which involves the dissemination of initiatives of interest for the hospital organisation, events and other contents linked to donations (especially for research), media coverage of activities carried out in the hospital, open-days, thanks to other institutions and fundraising activities.

Figure 7. Nature of posts

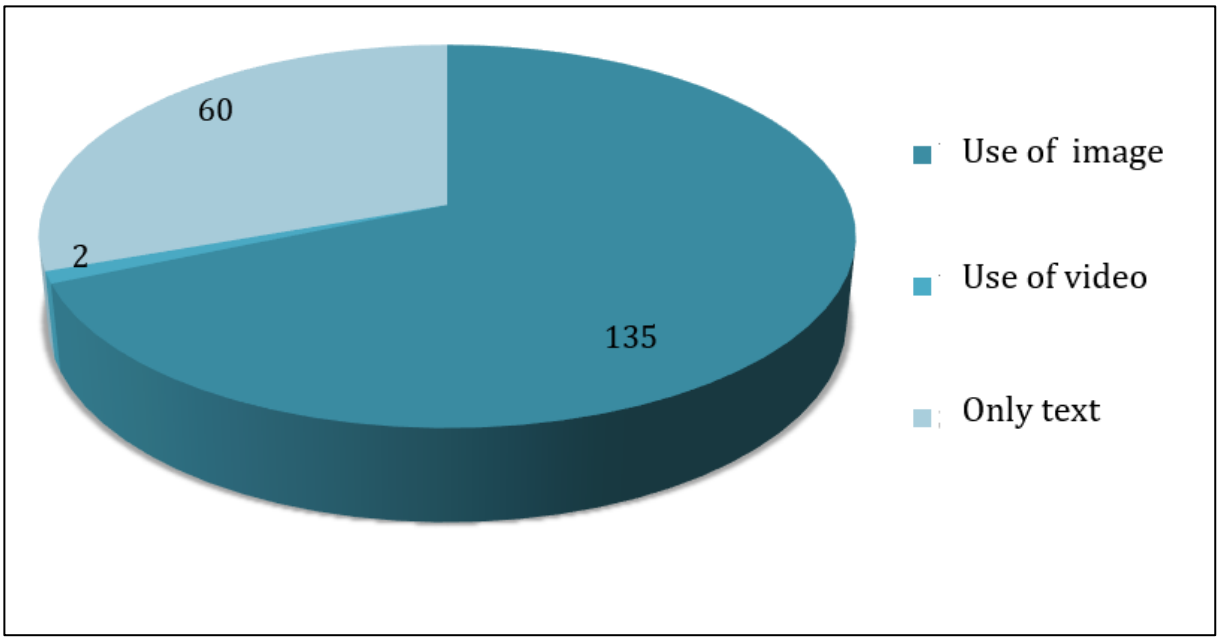


Source: Authors' own creation

Most of the posts are accompanied by an illustrative photograph or image of the topic (135), which increases their attractiveness. There are few exclusively-textual publications (60), most of which are

retweets of scientific content or other sources. Video is rarely integrated in the analysed publications (2 cases).

Figure 8. Resources of posts



Source: Authors' own creation

The average impact of a tweet of the hospital throughout the period of study is 3.9 retweets and 3.6 likes. The analysis indicates that the number of retweets usually exceeds the indicator of affinity – probably, because it assumes a lower level of involvement by the user- what occurs in the totals and the daily and monthly averages. However, in February the dynamics was inverse: the number Likes (hearts) is higher than that of retweets. The cause is the International Childhood Cancer Day (15 February) and the contents that the hospital posts in this regard and that have generated the largest volume of dissemination and social impact among followers.

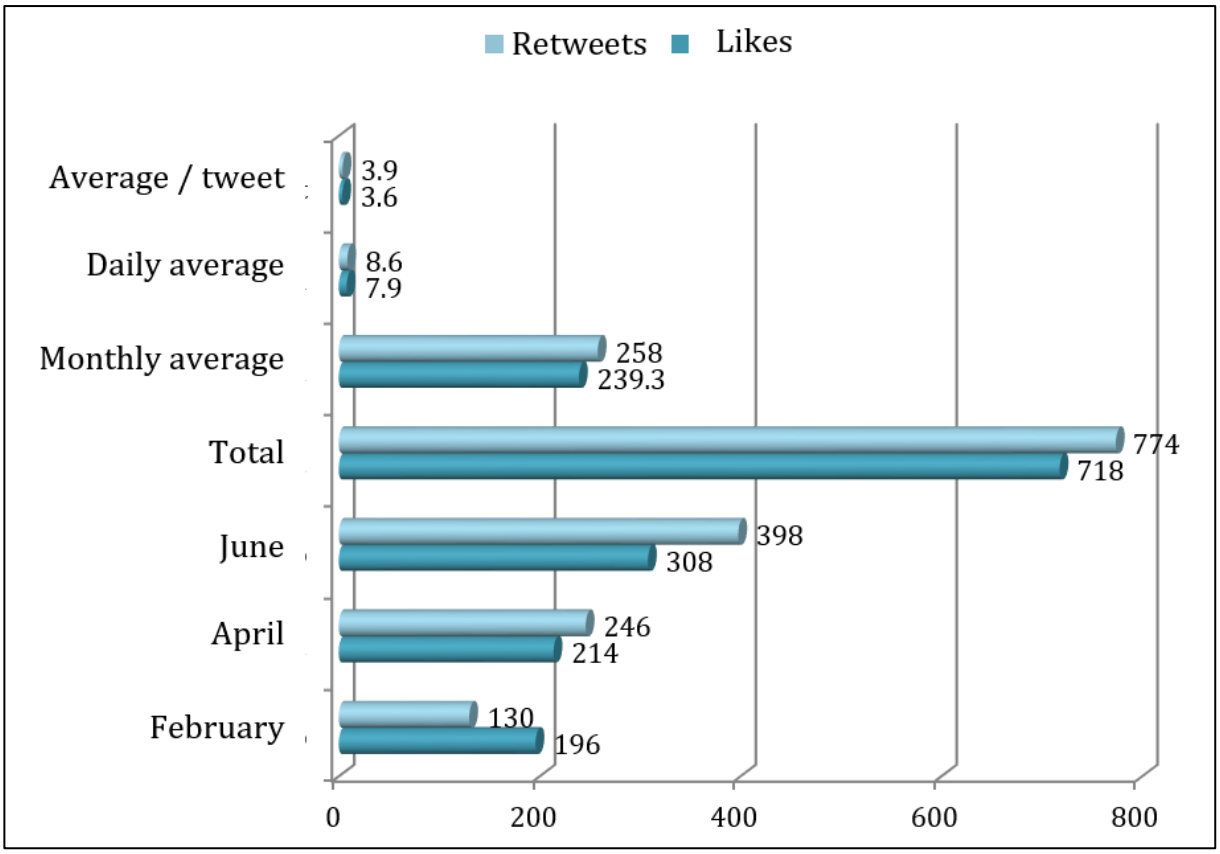
In particular, the hospital uses Twitter to promote a Guide for parents with children with cancer, adapted from the Spanish Association against Cancer (the *Faros* website also provides the original document). The solidarity and empathy of followers increases their impact and emotional involvement.

In general, informative contents receive higher retransmission and affinity from audiences, while scientific content produce the opposite, reaching much lower user involvement given that they are less understandable for the population ignorant in the matter. Thus, the ranking of most retweeted contents (10 or more retweets) includes 9 informative contents, 5 corporate, and 3 of other types. In the opposite ranking –the contents that have not received any retransmission- includes 19 scientific contents, 15 informative posts (but the number of this type of posts is much higher), 7 corporate and 1 of other type.

The analysis shows that audiences are more interested in informative contents related to social issues of widespread concern, including: childhood cancer, blood donation, the benefits of sports, the importance of sun cream and the prevention of children accidents (all of these contents have more than 10 retweets).

The dynamics of affinity (likes) coincides with part of the most shared contents (because both variables are positively correlated), and two variables converge in the impact. On the one hand, as mentioned, the posts about particularly sensitive issues linked to children or health in general (cancer, blood donation or the visit of well-known athletes to the hospital) generate emotional involvement. On the other hand, the contents linked to specific personal projects also generate affinity since the network of these profiles is involved with the corresponding content. Thus, for example, the appointment of one of the members of the hospital as the President of the Spanish Society of Paediatric Palliative Care and the fundraising project of the parents who lost their daughter to incurable cancer achieved high degrees of involvement.

Figure 9. Impact of posts (retweets / likes)

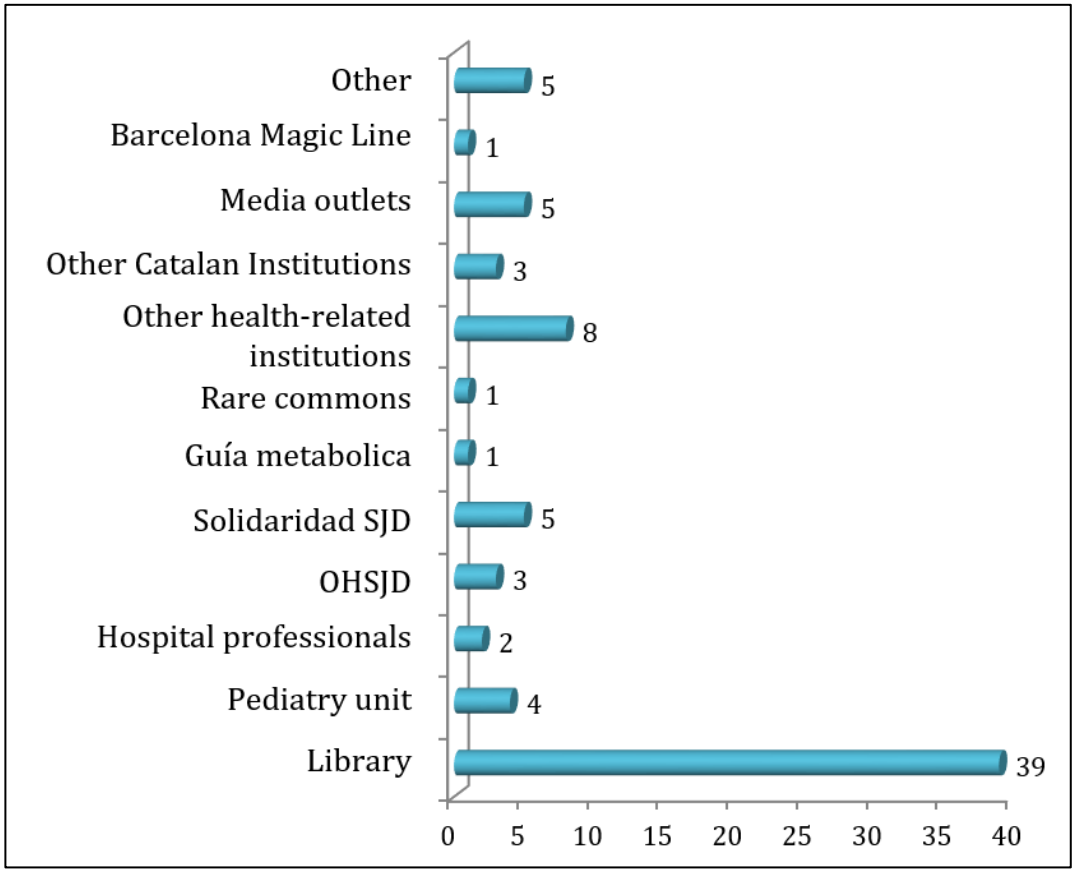


Source: Authors' own creation

With regards to content retweeted by the hospital, the contents posted by the SJD library are the most abundantly referenced in line with the strategy of promotion of research work on paediatrics. On the other hand, the fact that the hospital has a wide network of channels (also on Twitter) helps the

hospital's account to in turn disseminate the news and activities of other closely linked accounts (those of the Order of Saint John of God, Solidarity of Saint John of God, *Guía Metabólica*/Metabolic Guide and Rare Commons, among others). The hospital's accounts also maintain a relationship with other Catalan institutions linked to the field of health and institutions like Barcelona firefighters, Emergency services and the *Banc de Sang*.

Figure 10. Source of retweets



Source: Authors' own creation

In terms of the main strategies of use given to Twitter, there are three noteworthy lines of activity:

First, priority is given to informative content, where the microblogging network acts as a broadcaster of the contents of *Faros*, the open health education website launched by the hospital. This website offers contents that are classified according to two main criteria: age and subject matter. In terms of age, the content is designed for Prenatal topics, first year; 1 to 5 years, 5 to 12 years and adolescence. By theme, contents are classified in: nutrition, health, safety, development and learning, family and news. Each of these sections, organises the information in several sub-themes, seeking to respond to current questions of social importance from a biopsychosocial perspective. In this sense, the contents chosen for dissemination on Twitter stand out for their newness and social relevance (adolescents and behavioural disorders, eating habits, myths of marijuana use, etc.), which makes them appealing

to users. In terms of the writing style, they tend to be written in the form of questions, to draw more attention and address citizens more directly. All of them are accompanied by an image related to the posted content and they are written in Spanish and Catalan, which doubles the broadcasting possibilities of comments. It is important to emphasise the exploitation of the opportunity provided by the International day of various diseases to spread awareness about their nature and prevention (the World Autism Awareness Day, the International Childhood Cancer Day, the World Health Day dedicated to diabetes). Other events are also used to talk about the importance of reading in children (such as the Sant Jordi Day) or seasonal issues, like spring or summer, to talk about allergies or the importance of sun protection, respectively.

Recently, in mid-July of this year, the hospital launched in parallel a Twitter account in Catalan (@SJDbarcelona_ca), to diverge the contents in parallel accounts depending on the language.

Second, the hospital follows a strategy of scientific content, which promotes academic articles and research in areas related to pregnancy, maternity and paediatrics. In this sense, the Twitter account retweets contents featured by the channel of the library of the Order of Saint John, which are usually indexed in some of the most important medical databases, like the National Library of Medicine (NLM) of the United States. Such contents are published in English, the language of the featured scientific contributions, and are not accompanied by any image. They are content with very low impact.

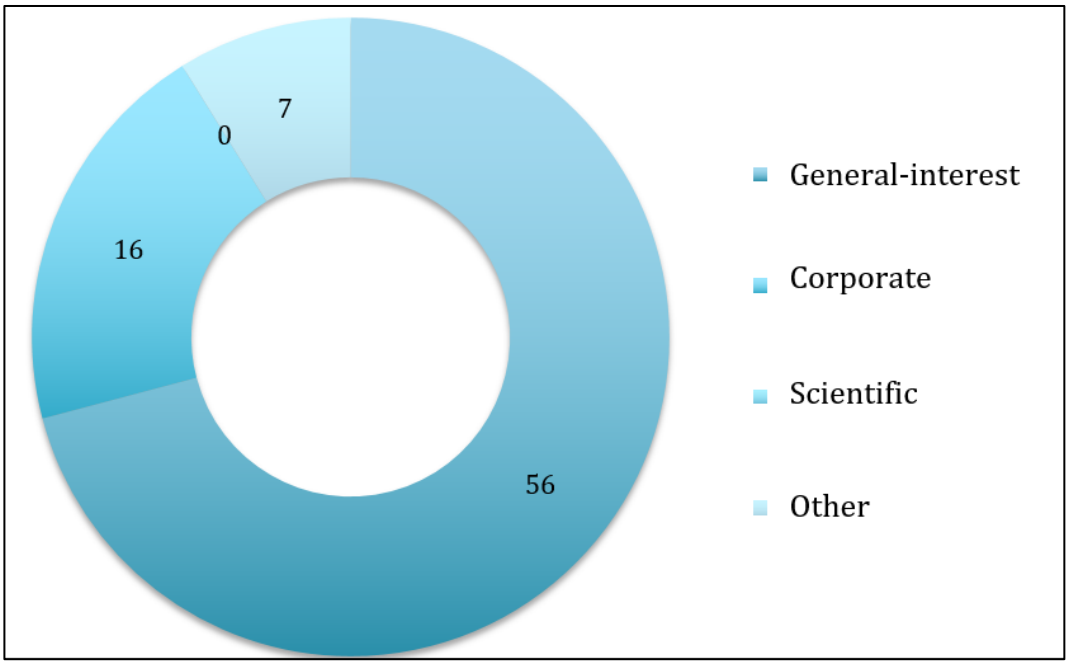
Third, in order of priorities, would be the most corporate content, linked to the raising of funds for research and projects of the hospital with lines of collaboration with other entities, awards received, the celebration of conferences and events or the media coverage of the hospital's activities or interviews with their staff. In this sense, the corporate website and the website of the hospital's friends of tend to be the sources of reference.

Twitter, in short, is used as a network to broadcast the informative content of the website *Faros* (the most important, based on their general interest), scientific contents (research articles recommended by the library services, which are the second in importance) and corporate contents, which underline the relevance of research for the hospital and its good institutional relationships (in that order, the third in importance)

3.2.3. Content strategy on Facebook

The scientific purpose disappears from the contents posted on Facebook. Probably because it is a general-interest network, the hospital chooses to eliminate the most specialised contents and to bet once again on general-interest as the fundamental line of content. This is followed by the corporate purpose and then by the "other" category, which encompasses the contents (only seven) that do not fit any of the previous categories.

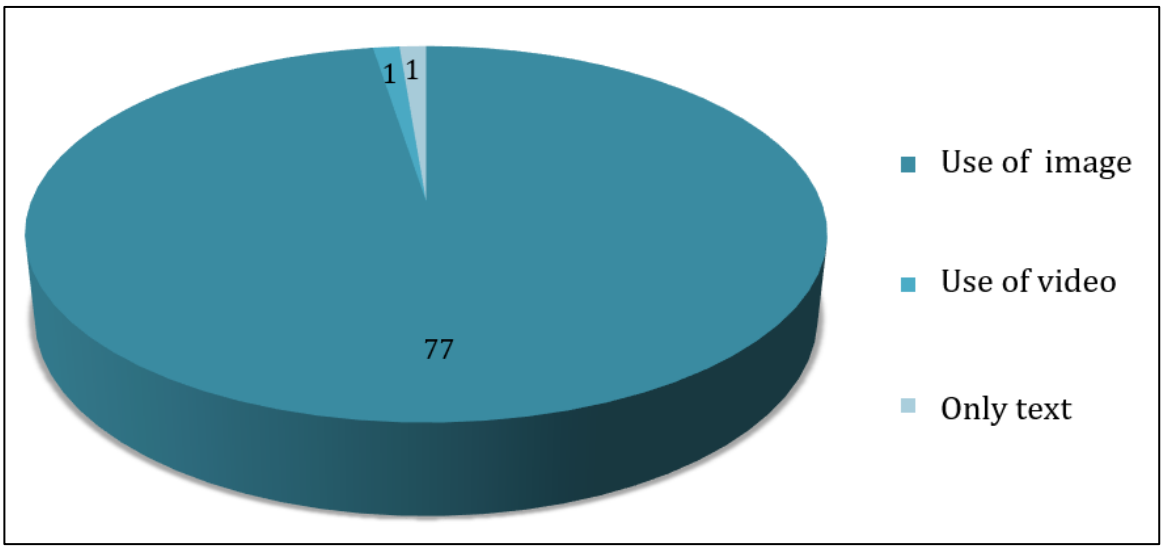
Figure 11. Nature of posts



Source: Authors' own creation

The informative posts on Facebook include an introductory paragraph on the subject in question, followed by an image and a link to the subject matter in *Faros* (in Catalan and Spanish). Therefore, they are, mostly, posts that incorporate an image, since video was used only in one post. A corporate post presents the compilation of the hospital's projects financed with donations and includes a link to Issuu where the document is published.

Figure 12. Resources of posts

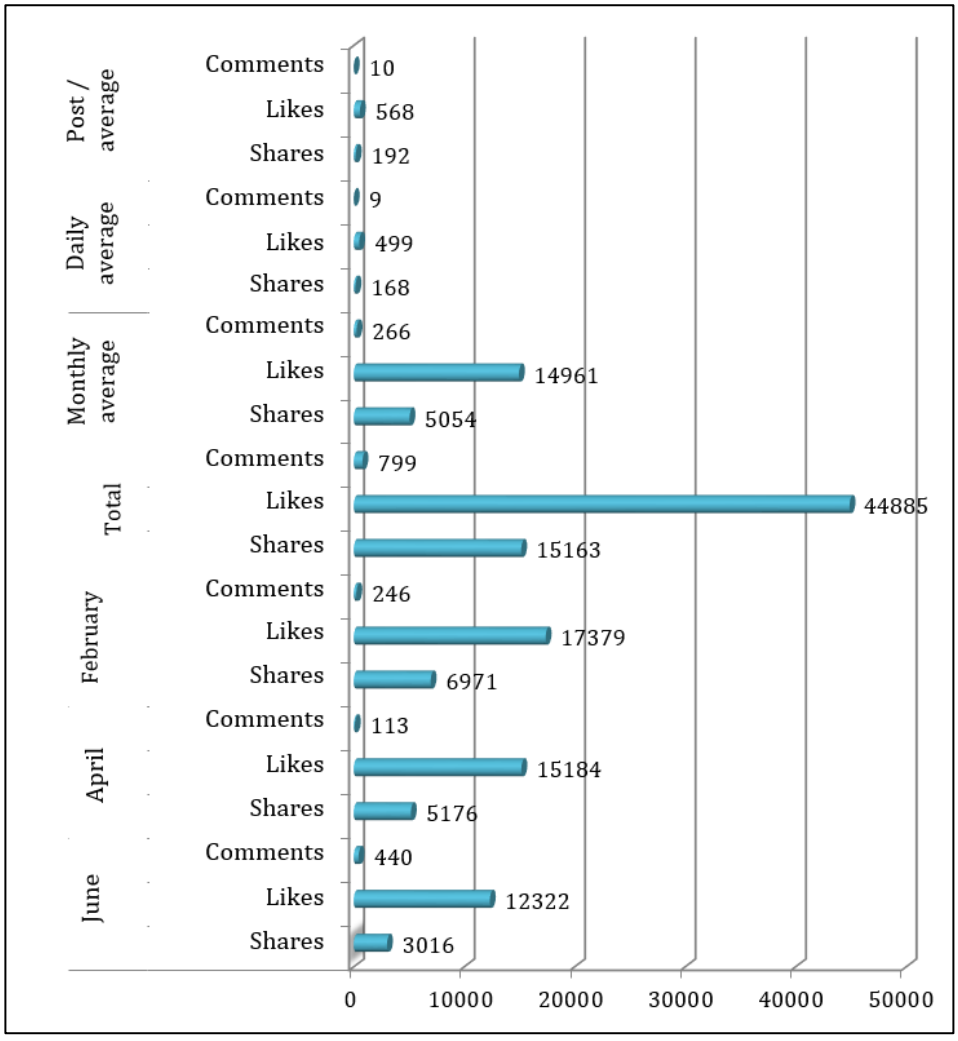


Source: Authors' own creation

[Research] | DOI: 10.4185/RLCS-2016-1137en | ISSN 1138-5820 | Year 2016

The impact of the posts on Facebook is measured differently than in Twitter. In this social network, the number of Likes is higher than the number of times a post is shared (indicator: *number of times shared*), while the lowest interaction occurs through comments (because it requires a greater level of participation). The hospital generates an average impact of 10 comments, 568 likes, and 192 shares. 16 posts generated 10 or more comments, and of these posts 11 were informative, 4 were corporate and 1 was of "other" kind. The latter type, oddly enough, generated the largest number of comments, a total of 87, with a topic related to the dissemination of the initiative *A way for Asier*, based on the pilgrimage from Rome to Santiago de Compostela to raise funds for the hospital's children's brain tumour research. The conversation (the highest degree of involvement from users) emerged in particularly sensitive subjects (like the aforementioned topics and the International Childhood Cancer Day) and personal/professional projects of successful and social impact (a researcher in the hospital received a research scholarship from an important foundation), as well as corporate issues (motivations for the health professionals who are on the night shift).

Figure 13. Impact of posts



Source: Authors' own creation

In terms of the number of shares, an indicator of re-dissemination, 23 posts exceed the average, achieving more than 192 shares. Once again, the subject of health education stands out. They are general-interest topics that have managed to draw the attention of users. Thus, the most shared post explains the risks of tablets and mobile phones for children's visual health (912 shares). This is followed by the topic of childhood cancer and the importance of educating without shouting (732 shares). The ranking continues with a post about the importance of the presence of parents in the disease processes of children (659 shares) and other explanatory content about rare diseases (634 shares).

Likes are common, but the average of 568 has been exceeded by 16 informative posts, 6 corporate posts and 3 "other" types of posts. The trends that explain the rate of retransmission are repeated. In childhood cancer, the initiative *A way for Asier*, followed by other subjects of social sensitivity, such as the paternal presence in disease processes or rare diseases lead the indicator of affectivity.

The contents referenced by other Facebook profiles have been related to the activities of the hospital (especially of the Escola des Pins, a space created to help hospitalised children to forget about their health problems, to establish relationships with other children and continue their learning), Rare Commons and *Solidaridad Sant Joan de Déu*, followed by the media (particularly, *La Vanguardia*) and other Catalan institutions (Firefighters with cause, the Official College of Nursing and the Blood bank).

With regards to the main strategies to use Facebook, it is important to highlight the following:
First, the strategy to disseminate tips on health and wellness for parents, children and adolescents, in parallel with the Twitter account. Again, *Faros* is the platform that provides content to the main Facebook strategy, as after introducing the topic closely and directly, it is linked to the content published on the online portal. There are slight variations between the content published on Twitter and on Facebook in this regard, in terms of date or topics, but these differences are quantitatively irrelevant. There is an important adaptation of content for Facebook to make it more accessible and understandable. Thus, Facebook uses terms such as sunscreen and pinworms, while Twitter uses the terms photoprotector cream and tapeworm infections, respectively. Likewise, Facebook posts describe what a metabolic syndrome in children is before presenting the content to the public. All this makes Facebook a channel closer to citizens, since although it transmits the same information, it approaches the subject with a simpler language.

On the other hand, there is no strategy of scientific dissemination. In this case, the channel aims to be close and familiar, devoid of the academic and professional nuances that are adopted in the other platform. In this sense, the Facebook page provides service information to users (on works that are taking place in the lobby, for example) and especially information related to the internal activities of the hospital (an exhibition of drawings by children of the Escola des Pins or about their Easter celebrations). Facebook is thus consolidated as a channel for its own community, while the Twitter profile is committed to act as also as a scientific and research centre and, in this sense, is less close but more open to multiple interests.

In short, Facebook is the channel for the hospital's community of users or for parents who are particularly interested in its contents. For this reason, it does not have a scientific approach and seeks to be closer in the use of language.

4. Discussion and conclusions

The advance of the Internet and social networks will continue. Thus, the hospital must take the step to communicate in the online environment, where its audiences are and where it can strengthen its role as agent of health communication (Medina-Aguerrebere *et al*., 2013).

Half of the Spanish hospitals with the best reputation are not present on Twitter, Facebook or YouTube, the social media where hospitals generally have greater presence. However, some of the members of their staff and some of their departments, services and units are present in this platform. The hospital is a complex organisation and its communicative activities can take places in other instances, so this organisation, as an institution, can use these channels to strengthen its presence online. In addition, the *strategy of silence* can lead to others to occupy the hospital's space, with the consequent use of the name and, most importantly, the loss of the opportunity to communicate (Losada Díez, 2010).

The case study of the Hospital Sant Joan de Déu (Barcelona) has been of special interest because it has allowed us to identify the strategy of health education as a vector of main relationship with its public in the Web 2.0. This does not mean that the public relations strategy that organisations usually maintain on the social Web is not present but, in this case and in the case of hospitals especially, that becoming a source of reference in health information is the best possible goal for its image. Its own strategy of corporate social responsibility and sustainability (through health education to parents, primarily) necessarily involves, at the same time, a strategy of positive image. In this sense, it is also a case of interest as a content marketing strategy, in which offering interesting, relevant and new content that responds to social needs and concerns generates value and positioning.

On the other hand, this research has allowed us to determine that the same priority strategy can be adapted to the corresponding social network, depending on the objective and the tone of the conversation. Facebook, in the case study, is the community network closer to the hospital, while Twitter is also a channel of scientific communication, more open to all the publics and more transversal.

As recommendation, we proposed that hospitals to value the possibility of creating a platform of informative content (as the *Faros* website in this case) that serves to the hospital as site of reference to disseminate educational content to users. Initiatives of interest in this regard could be a blog, the section of the corporate website, or the integration of health-related contents throughout the communication strategy. Starting from there, the work must be renewed constantly and can be used for other platforms, each of which can contribute to the whole strategy. The importance of content involves thinking about topics that are of general interest, current and close, and to search attractive formulas to deliver content. Current formulas linked to the celebration of anniversaries (international or national days), seasonal changes (issues that matter most in winter or summer, for example) and social issues contribute to ensure the interest of users. In this sense, health is conceived from a biopsychosocial perspective that goes beyond physical symptoms and illnesses and aims to achieve the highest possible well-being among citizens.

The contents that have generated greater interaction in users are those related to particularly sensitive issues for society and issues that appeal to the interest of the story of a specific personal or professional project, where the linked network supports and interacts positively with the initiative.

There is still long way for Spanish hospitals to reach the 2.0 level of communication. This study could be replicated in the future to evaluate how the present situation has evolved. However, the objective should not only be to report on health, but also to develop a good strategy to get the message across (Peñafiel et al., 2014). It is important to give continuity to the line of study of institutional communication related to health communication, under the premise that healthcare organisations work to achieve their communicative and organisational mission simultaneously in the offline and online environments.

5. References

Arencibia-Jiménez; Mercedes; Aibar-Remón, Carlos (2007). "Páginas web de hospitales. Realidad virtual o… ¿son realmente un medio útil para la difusión de información para sus usuarios?" *Revista de Calidad Asistencial*, v. 22, n. 3, pp. 118-127.doi:
http://dx.doi.org/10.1016/S1134-282X(07)71206-X

Bates, Benjamin (2014). "Comunicación para la salud". *Escribanía*, v. 12, n. 1, pp. 55-63.
http://revistasum.umanizales.edu.co/ojs/index.php/escribania/article/view/872/997

Bermúdez-Tamayo, Clara; Alba-Ruiz, Rubén; Jiménez-Pernett, Jaime; García Gutiérrez, José-Francisco; Traver-Salcedo, Vicente; Yubraham-Sánchez, David (2013). "Use of social media by Spanish hospitals: perceptions, difficulties, and success factors". *Telemedicine and e-Health*, v. 19, n. 2, pp. 137-145.
Doi: http://dx.doi.org/10.1089/tmj.2012.0066

Calvo-Calvo, Manuel-Ángel. (2014). "Calidad y características de los sitios web de los hospitales españoles de gran tamaño". *Revista Española de Documentación Científica*, v. 37, n.1, pp. 1-19.
Doi: http://dx.doi.org/10.3989/redc.2014.1.1049

Colomer-Revuelta, Concha; Álvarez-Dardet Díaz, Carlos (2006). *Promoción de la salud y cambio social*. Barcelona: Masson.

Costa-Sánchez, Carmen (2012). "El gabinete de comunicación del hospital. Propuesta teórica y acercamiento a la realidad de los departamentos de comunicación de los hospitales públicos de Galicia". *Doxa Comunicación*, 14, 175-197.

Costa-Sánchez, Carmen (2011). *La comunicación en el hospital: la gestión de la comunicación en el ámbito sanitario*. Sevilla: Comunicación social.

Costa-Sánchez, Carmen (2009). "Del press agent a la comunicación estratégica. Cómo hacer que la comunicación sirva a la estrategia de gestión". *Razón y Palabra*, 70, 1-17.

Custodio-López, Jesús J. (2011). "Las herramientas de la Web 2.0 en el consultorio externo". *Revista del Cuerpo Médico Hospital Nacional Almanzor Aguinaga Asenjo*, v. 4, n.1, p. 67.
http://dialnet.unirioja.es/descarga/articulo/4060142.pdf

Díaz, Hernán (2012). "Comunicación en salud". En: Basagoiti, Ignacio. *Alfabetización en salud. De la información a la acción*. Valencia: ITACA/TSB, pp. 43-56.

Díaz-Cuenca, Antonia (2007). "Análisis de la calidad de las páginas web en los hospitales españoles". *Enfermería Globa*l, v. 6, n. 1, pp. 1-13.

Doblas-Arrebola, Salvador (2008). "Modelo de análisis de la usabilidad en sitos web de hospitales universitarios españoles". En: Cuesta-Cambra, Ubaldo; Ugarte-Iturrizaga, Aitor; Menéndez-Hevia Tania (Coord.). *Comunicación y salud: avances en modelos y estrategias de intervención*. Madrid: Editorial Complutense.

Farabough, Lauren Alesha (2013). *Using Facebook as a public relations tactic: A look at how hospitals are engaging with fans.* Doctoral dissertation. University of Arkansas at Little Rock. http://search.proquest.com/docview/1525026579?accountid=17197.
Fernández-Luque, Luis; Bau, Teresa (2015). "Health and social media: perfect storm of information". *Healthcare informatics research*, v. *21*, n. 2, pp. 67-73.
Doi: http://dx.doi.org/10.4258/hir.2015.21.2.67

Fernández-Silano, Mariano (2013). "La Salud 2.0 y la atención de la salud en la era digital". *Revista Médica de Risaralda*, v. 20, n.1, pp. 41-46.
http://www.scielo.org.co/pdf/rmri/v20n1/v20n1a09.pdf

Gabarrón, Elia; Fernández-Luque, Luis (2012). "eSalud y vídeos online para la promoción de la salud". *Gaceta Sanitaria*, v. *26*, n. 3, pp. 197-200.
Doi: http://dx.doi.org/10.1016/j.gaceta.2012.03.004

González-Borjas, Antonia (2004). "Salud, información periodística especializada en alza". *Ámbitos*, v. 11-12, pp. 301-310.
http://www.aloj.us.es/grehcco/ambitos11-12/borjas.pdf

González-Pacanowski, Tony; Medina-Aguerrebere, Pablo (2011). "Blogs para pacientes como nueva fuente de información de salud". *El profesional de la información*, v. 20, n.6, pp. 652-658.
Doi: http://dx.doi.org/10.3145/epi.2011.nov.08

Griffis Heather M.; Kilaru Austin S.; Werner, Rachel M.; Asch, David A.; Hershey John C.; Hill Shawndra; Ha Yonhee P.; Sellers A.; Mahoney K.; Merchant RM (2014). "Use of Social Media Across US Hospitals: Descriptive Analysis of Adoption and Utilization". *Journal of Medical Internet Research*, v. 16, n. 11, p. 264.
Doi: http://dx.doi.org/10.2196/jmir.3758

Huang, Edgar; Dunbar, Christina L. (2013). "Connecting to patients via social media: A hype or a reality?" *Journal of Medical Marketing: Device, Diagnostic and Pharmaceutical Marketing*, v. 13, n. 1, pp. 14-23.
Doi: http://dx.doi.org/10.1177/1745790413477647

Losada-Díaz, José Carlos (2010). *Comunicación en la gestión de crisis. Lecciones prácticas*. Barcelona: Editorial UOC.

Lloret Romero, Nuria; Canet Centellas, Fernando (2008). "New stages, new narrative forms: The Web 2.0 and audiovisual language". *Hipertext.net*, 6.
http://www.upf.edu/hipertextnet/en/numero-6/lenguaje-audiovisual.html

Martínez-Solana, Yolanda (2011). "La responsabilidad de las instituciones públicas en la comunicación sobre salud". En: Cuesta-Cambra, Ubaldo; Menéndez-Hevia, Tania; Ugarte-Iturriaga, Aitor (coords.). *Comunicación y salud: nuevos escenarios y tendencias*. Madrid: Editorial Complutense, pp. 51-64.

Medina-Aguerrebere, Pablo, Lacasa, Iván; Mas, María-Victoria (2013). "La dimensión pedagógica de la comunicación hospitalaria online". *Sphera Publica*, v. 2, n. 13, pp. 124-140.
http://www.redalyc.org/pdf/297/29732392008.pdf

Medina Aguerrebere, Pablo (2012). "La comunicación hospitalaria 2.0: un nuevo desafío para la comunicación institucional". *Austral Comunicación*, v. 1, n.2, pp. 189-202.
http://www.austral.edu.ar/ojs/index.php/australcomunicacion/article/view/21/25

Menéndez-Hevia, Tania (2006). "Psicología social de la salud: aproximación teórica a modelos de prevención y promoción de la salud". En: Cuesta-Cambra, Ubaldo; Ugarte-Iturrizaga, Aitor; Menéndez-Hevia Tania. *Comunicación social y salud. Una introducción*. Madrid: Edipo, pp. 121-135.

ONTSI (2012). *Los ciudadanos ante la e-sanidad*. Madrid: ONTSI.

Peñafiel Saiz, C; Camacho Markina, I.; Aiestaran Yarza, A.; Ronco López, M. y Echegaray Eizaguirre, L. (2014). "La divulgación de la información de salud: un reto de confianza entre sectores implicados". *Revista Latina de Comunicación Social*, 69, pp. 135 a 151. http://www.revistalatinacs.org/069/paper/1005_UPV/08c.html
doi: http://dx.doi.org/10.4185/RLCS-2014-1005
http://www.ontsi.red.es/ontsi/sites/default/files/informe_ciudadanos_esanidad.pdf

Richter, Jason; Muhlestein, David B.; Wilks, Chrisanne (2014). "Social media: how hospitals use it, and opportunities for future use". *Journal of Healthcare Management*, v. 59, n. 6, pp. 447-461.
Doi: http://dx.doi.org/10.2196/jmir.3758

Ruiz-Granja, María-José (2015). "Análisis comunicacional de páginas web hospitalarias. El caso de los hospitales sevillanos". *Revista Española de Comunicación en Salud*, v. 6, n.2, pp. 138-156.
http://e-revistas.uc3m.es/index.php/RECS/article/view/2934

Sánchez-Bocanegra, Carlos; Sánchez-Laguna, Francisco (2012). "Las app sanitarias". En: Basagoiti, Ignacio. *Alfabetización en salud*. *De la información a la acción.* Valencia: ITACA/TSB, pp. 263-276.

Schiavo, Renata (2007). *Health Communication. From theory to practice*. New York: Jossey-Bass.

Van de Belt, Tom H.; Berben, Sivera A.; Samsom, Melvin; Engelen, Lucien; Schoonhoven, Lisette (2012). "Use of social media by Western European hospitals: longitudinal study". *Journal of medical Internet research*, v. 14, n. 3: e61.
Doi: http://dx.doi.org/10.2196/jmir.1992

Van de Belt, Tom H.; Engelen, Lucien; Berben, Sivera A., Teerenstra, Steven; Samsom, Melvin; Schoonhoven, Lisette (2013). "Internet and social media for health-related information and communication in health care: preferences of the Dutch general population". *Journal of medical Internet research*, v. 15, n. 10, e220.
Doi: http://dx.doi.org/10.2196/jmir.2607

Vanzetta, Marina; Vellone, Ercole; Dal Molin, Alberto; Rocco, Gennaro; De Marinis, Grazia; Rosaria, Álvaro (2014). "Communication with the public in the health-care system: a descriptive study of the use of social media in Local Health Authorities and public hospitals in Italy". *Annali dell'Istituto superiore di sanità*, v. 50, n. 2, pp.163-170.
Doi: http://dx.doi.org/10.4415/ANN_14_02_10

How to cite this article in bibliographies / References
C Costa-Sánchez, M Túñez-López, JJ Videla-Rodríguez (2016): "Spanish hospitals in the social web. The management of Facebook and Twitter by Hospital Sant Joan de Déu (Barcelona)". *Revista Latina de Comunicación Social*, 71, pp. 1.108 to 1.130.
http://www.revistalatinacs.org/071/paper/1137/57-en.html
DOI: 10.4185/RLCS-2016-1137en

Article received on 10 June 2016. Accepted on 27 October.
Published on 1 November 2016.