

The Impact of Social Media on Hospitals' Branding Initiatives: an Analysis about the World's Best Hospitals

El impacto de las redes sociales en las iniciativas de marca de los hospitales: análisis sobre los mejores hospitales del mundo

Originales

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Abstract

Introduction: Hospitals face a constantly changing context that leads them to accelerate their digital transformation: cyberhealth, new business models, global competition, etc. In this framework, social media platforms have become a useful tool for transforming hospitals and enhancing their public image. **Objectives:** This paper aims to analyze how the world's best hospitals manage social media platforms to disseminate brand related content and this way reinforce their reputation. **Methodology:** To do that, we carried out a literature review about health communication, social media and brands; then, we analyzed how the world's 100 best hospitals managed their social media platforms (Facebook, Twitter, Youtube) as well as their own corporate websites for promoting their brand; and finally, we proposed different managerial implications. **Results:** Most hospitals resort to their corporate websites (76%) and corporate profiles on Facebook (78%), Twitter (73%) and Youtube (78%) for branding initiatives. **Conclusions:** Hospitals should prioritize a corporate communication approach, focus on useful content for each stakeholder, and promote learning sessions for helping employees become brand ambassadors.

Keywords: Hospital; Corporate Communication; Brand; Reputation; Social Media.

Resumen

Introducción: Los hospitales hacen frente a un contexto cambiante que les obliga a acelerar su transformación digital: ciber salud, nuevos modelos de negocio, competencia global, etc. En este contexto, las redes sociales se han convertido en una herramienta útil para transformar dichos hospitales y mejorar su imagen pública. **Objetivo:** Este artículo tiene como objetivo analizar cómo los mejores hospitales del mundo gestionan las redes sociales para difundir contenido relacionado con la marca y de este modo reforzar su reputación. **Metodología:** Para ello, realizamos una revisión bibliográfica sobre comunicación en salud, redes sociales y marcas; posteriormente, analizamos cómo los 100 mejores hospitales del mundo gestionan sus redes sociales (Facebook, Twitter, Youtube), así como sus propios sitios web corporativos para promover su marca; y finalmente, proponemos diferentes implicaciones de gestión. **Resultados:** La mayor parte de los hospitales recurren a su página web (76%) y sus perfiles corporativos en Facebook (78%), Twitter (73%) y Youtube (78%) para promocionar su marca. **Conclusiones:** Los hospitales deben priorizar un enfoque de comunicación corporativa, centrarse en contenido útil para cada stakeholder y promover sesiones de formación para ayudar a los empleados a convertirse en embajadores de marca.

Palabras clave: Hospital; Comunicación Corporativa; Marca; Reputación; Redes Sociales.

Introduction

Hospitals constantly face different challenges that lead them to modify their professional practices: cyberhealth, new business models, global competition, new patients' demands, etc. These organizations try to accelerate their digital transformation in order to fulfill different managerial, economic and social requirements. Nevertheless, some health professionals, as well as other employees in these organizations, are not willing to integrate these changes into their daily activities. In this framework, more and more hospitals resort to social media platforms as a way to smoothly change employees' mentalities and this way implement a digital transformation for the whole organization.

These platforms allow hospitals to influence stakeholders' perceptions (employees, patients, media companies, public authorities), work in a more efficient way (online consultations, private platforms for patients, mobile apps) and reinforce their brand. This paper aims to analyze how the world's best hospitals manage social media platforms to disseminate brand related content and this way reinforce their reputation. To do that, we carried out a literature review about health communication, social media and branding. Then, we resorted to the World's Best Hospitals 2021, a ranking published every year by Newsweek and Statista Inc, to identify the 100 best hospitals in the world. This ranking is based on three main inclusion criteria : recommendations from 74.000 medical experts, results from patients' surveys, and medical key performance indicators. Then, we analyzed how each of these 100 hospitals managed their social media platforms (Facebook, Twitter, Youtube) as well as their own corporate website for promoting their brand. To do that, we defined 48 criteria. Finally, we proposed three conclusions and three managerial implications.

From Health Communication to Online Health

Brands Corporate communication in hospitals

Corporate communication plays a key role on public health policies (Chan, Yu-Ling, Huxley & Evans, 2016). Health organizations, such as hospitals, public authorities and patients' associations, promote corporate communication activities to make more efficient all medical services

proposed to patients and reinforce their humanistic approach of health care (Brent, 2016). These organizations carry out different training initiatives to help health professionals and patients to improve their communication skills (Jahromi, Tatabaee, Abdar & Rajabi, 2016), which positively influences on their relationships (Blackston & Pressman, 2016). In hospitals, the Corporate Communication Department bases this organizational transformation on three main areas: interpersonal, internal and external communication (Medina Aguerrebere, Gonzalez Pacanowski & Medina, 2020).

Patients-doctors interpersonal communication activities positively contribute to improve patients' engagement (Chan et al., 2016) as well as their adherence to treatments recommended by doctors (Archiopoli, Ginosar, Wilcox, Avila, Hillm, & Oetzel, 2016). When doctors do not manage properly these skills, patients risk different problems such as taking wrong decisions concerning treatments and drugs (Fischer, 2014). More and more hospitals have implemented digital transformation processes (e-health, social media, mobile apps) to improve doctors-patients' interpersonal communication (Blackston & Pressman, 2016). Concerning internal communication, it refers to communication activities taking place between strategic managers and internal stakeholders whose main objective is to promote employees' engagement with the organization (Welch & Jackson, 2007). Thanks to internal communication, hospitals share information with employees (Rodrigues, Azevedo & Calvo, 2016) and promote corporate values such as their identity or vision (Jahromi et al., 2016). With respect to external communication, hospitals respect patients' rights when communicating with them (Pelitti, 2016) as well as other external stakeholders' rights, such as media companies or public authorities (Medina Aguerrebere, et al., 2020). The hospital's Corporate Communication Department carry out three main external communication activities:

- a)** research about external stakeholders' attitudes and trends (Moser & Greeman, 2014):
- b)** promotion of public health related content, such as health education campaigns or health literacy (Fischer, 2014);
- c)** evaluation of all communication initiatives according to different indicators in order to quantify the impact of external communication in the organization's reputation (Zerfass & Viertmann, 2017).

Most hospitals consider social media as a true corporate communication tool (Matarin Jimenez, 2015). These platforms allow them to improve doctors-patients' collective decision-making processes, enhance medical services and manage emergencies in a more efficient way (Lim, 2016). Hospitals share with patients medical information and provide them with an emotional support (Myrick, Holton, Himboim & Love, 2016). To do that in a professional way, these organizations need to set up a Social Media Unit integrated by experts in public health and communication (Ruiz-Granja, 2015). Unfortunately, many hospitals do not have the budget necessary for that, which represents a reputation risk for them (Rando Cueto, Paniagua Rojano, De las Heras Pedrosa, 2016). On the other hand, more and more patients are interested in social media because it allow them to communicate with doctors in a more efficient way (Smailhodzic, Hooijsma, Boonstra & Langley, 2016). These platforms determine patients' behaviors and perceptions (Namkoong, Nah, Record & Van Stee, 2017), that is why hospitals should manage social media platforms in a professional way (Haluza, Naszay, Stockinger & Jungwirth, 2016).

Branding initiatives

In hospitals, the Corporate Communication Director's main responsibility consists of promoting the company's brand and reinforcing its strategic positioning in the health industry (Medina Aguerrebere et al., 2020). Brands represent tangible and intangible assets that create an added value to the company, and this value influences stakeholders' perceptions about the organization (Esposito, 2017). Hospitals conduct three main initiatives to reinforce their brand:

- a)** external communication initiatives such as public relations, marketing or events (Triemstra, Stork & Arora, 2018);
- b)** personal branding campaigns focused on some key employees whose main objective is to help them become brand ambassadors (Trepanier & Gooch, 2014) and this way promote the hospital's public image on social media platforms (Kotsenas et al., 2018) ;
- c)** collaborations with organizations specialized in publishing rankings, which helps hospitals to improve stakeholders' perceptions about the company and its performance (Cua, Moffatt-Bruce & White, 2017). Thanks to these

branding initiatives on social media platforms, hospitals improve their corporate reputation (Triemstra et al., 2018), reinforce their strategic positioning in the health industry (Costa-Sánchez & Míguez-González, 2018) and promote patients' empowerment (Ivanov & Sharman, 2018).

In order to promote this brand, hospitals can also resort to social media platforms (Blomgren, Hedmo & Waks, 2016). To do that, they respect three main criteria:

- a)** promoting a bidirectional dialogue between doctors and patients focused on education and knowledge (Visser, Bleijenbergh, Benschop, Van Riel & Bloem, 2016);
- b)** implementing training sessions for health professionals about how to use these platforms respecting corporate guidelines (Peluchette, Karl & Coustasse, 2016);
- c)** monitoring conversations to guarantee that all the content is accurate from a scientific point of view (Abramson, Keefe & Chou, 2015). Hospitals resort to different social media platforms for promoting their brand, such as Twitter, Facebook or Youtube. According to Rando Cueto et al. (2016), Twitter is a rather useful tool for helping hospitals achieve their corporate communication goals, disseminate medical information and improve patients' perceptions about doctors. On Facebook, patients tend to share information about symptoms, drugs, treatments and protocols, that is why hospitals monitor these conversations (Gage-Bouchard, La Valley, Mollica & Beaupin, 2017). Besides, disseminating health related content through this platform helps health organizations to reinforce their relations with stakeholders, especially with patients (Rodríguez Gonzalez, 2021). And finally, on Youtube, hospitals promote medical education initiatives based on videos and other visual formats such as information graphics (Kotsenas, Aase, Arce & Timimi, 2018).

Branding cancer hospitals

Managing corporate communication in a professional way constitutes a priority for hospitals interested in reinforcing their relations with stakeholders and build a reputed, credible brand (Cua et al., 2017). Using social media for branding purposes has become a common practice for every kind of hospitals: public and private hospitals, full services and specialized hospitals, etc. (McCaughey, Baumgardner, Gaudes, LaRochelle, Wu & Raichura, 2014). Among all of them, cancer hospitals are especially engaged on

promoting social media as a corporate communication tool (Medina Aguerrebere et al., 2020). On Facebook, doctors focus their communication with cancer patients on six main topics:

- a)** documenting the cancer journey;
- b)** sharing emotional strains associated with caregiving;
- c)** promoting awareness about some cancer diseases;
- d)** fundraising;
- e)** mobilizing support;
- f)** expressing gratitude for support (Gage-Bouchard et al., 2017).

Concerning Twitter, many cancer hospitals use this platform for improving patient's care: correct misinformation, redirect patients to accurate sources, provide emotional support and facilitate communication among patients (Sedrak, Cohen, Merchant, Schapira, 2016). With respect to Youtube, cancer hospitals resort to this platform to disseminate accurate information allowing patients to reinforce their empowerment (Basch, Basch, Hillyer & Reeves, 2015). Using Facebook, Twitter and Youtube to disseminate health related information contributes to reinforce the hospital's brand. According to Revuelta (2019), the increasing number of fake news published about health and the difficulty to access quality information make it difficult for patients to deeply analyze health related contents. That is why, becoming a true source of scientific information constitutes a strategic opportunity for hospitals interested in reinforcing their brand (Medina Aguerrebere, et al., 2020).

Methodology

In order to better understand how the world's best hospitals manage social media platforms to reinforce their brand, we conducted a quantitative analysis based on the World's Best Hospitals 2021, a ranking published every year by Newsweek and Statista Inc. This ranking analyzes more than 2.000 hospitals from 25 different countries (United States, UK, Germany, etc.) and considers three main inclusion criteria:

- a)** recommendations from more than 74.000 medical experts working in 25 different countries (doctors, hospitals managers, etc.);
- b)** results from patients' surveys (general satisfaction with hospital, satisfaction with medical care and services, etc.);

- c)** medical key performance indicators on hospitals (quality of care, hygiene measures, number of patients per doctor, etc.) (Newsweek, 2021a). The first data source accounts for 55% of each hospital's score, the second one 15%, and the third one 30%. This ranking identifies the 100 best hospitals in the world (see Annex 1). (Newsweek, 2021b). In this paper, we analyzed how each hospital managed four online platforms: a) their corporate website, a corporate communication tool used by these organizations for promoting their brand (Kotsenas et al., 2018); b) Facebook, a social media platform having more than 2.89 billion active users in June 2021 (Facebook, 2021); c) Twitter, a communication tool used by many hospitals for establishing conversations with patients (Park, Reber & Chon, 2016); and 4) Youtube, a social media platform allowing health organizations to share videos about health education and medical treatments (Apen-teng, Ekpo, Mutiso, Akowuah & Opoku, 2020).

We based our quantitative analysis on 48 different indicators grouped on three main categories: a) identity, b) communication activities, and c) patients' engagement (see Table 1). We resorted to these 48 indicators to analyze whether hospitals shared content related to their brand (history, values, vision, etc.) in order to influence stakeholders' perceptions. We tried to homogenize all indicators on the four online platforms, but we also respected the different data provided by each platform. All indicators were analyzed according to the binary system, except 7 of them that were analyzed as absolute numbers: Facebook (11, 12), Twitter (9,11,12) and Youtube (11,12). When measuring each indicator, we only considered inputs that we could immediately identify on the homepage, "About Us" section or "Information" section, and not those for which we needed to do more than one click and browser on different menus. On the other hand, we have only considered each hospital's corporate profile and no other secondary profiles that some of these hospitals displayed on Youtube, Facebook, Twitter and their corporate website (events, medical departments, etc.). We conducted this quantitative analysis from 20th June to 23rd August 2021. To do that, we used a basic data software: Microsoft Excel.

To summarize, we have chosen 100 analyze units (hospitals) for evaluating 4 variables (corporate website, Facebook, Twitter and Youtube) according to 48 indicators grouped on three main categories (identity, communication activities and patient's engagement) (Table 1).

Table 1. Key Performance Indicators

Corporate Website	Facebook	Twitter	Youtube
Identity*			
1. Corporate logo	1. Corporate logo	1. Corporate logo	1. Corporate logo
2. Multilingual website	2. Links to corporate websites	2. Links to corporate websites	2. Links to corporate websites
3. Links to medical departments	3. Hospital's description	3. Hospital's description	3. Hospital's description
4. Find a doctor	4. Milestones	4. Joined date	4. Milestones
5. Find diseases	5. Awards	5. Foundation date	5. Awards
6. Links to research and education departments	6. Brand values	6. Hashtags on the description	6. Brand values
7. Link to the Press Department	7. Mission	7. Health professionals or hospital's buildings on the main image	7. Mission
8. Links to social media platforms	8. Vision	8. Links to other social media platforms	8. Vision
Communication Activities**			
9. Videos on the homepage	9. Videos integrated	9. Number of followings	9. Playlists
10. Press releases on the homepage	10. Events	10. Media section with videos	10. Channels
Patient's engagement***			
11. Patients' platform	11. Number of likes	11. Number of likes	11. Number of subscribers
12. Mobile apps	12. Number of followers	12. Number of followers	12. Number of views

*Homepage on the Corporate Website and Twitter; About Us Section on Youtube; and Information Section on Facebook.

** Homepage in all platforms.

*** Homepage in all platforms.

Results

The best hospitals in the world resort to their corporate websites, Facebook, Twitter and Youtube to disseminate brand related content and this way influence stakeholders' perceptions (patients, media companies, public authorities). Nevertheless, not all of them manage these platforms in a professional way. In order to illustrate our statement, we present our quantitative data grouped in four main categories: corporate website, Facebook, Twitter and Youtube.

Corporate website

Our findings proved that 76% of hospitals analyzed had a corporate website¹. Concerning corporate identity, most hospitals respected some indicators such as the corpo-

rate logo on the homepage (100%) or links to medical departments (98,6%) research and education sections (94,7%), and the Communication Department (81,5%). Nevertheless, other indicators were not fully respected: multilingual website (77,63%), links to social media platforms (76,31%) and search engine for finding doctors (48,7%) and diseases (32,9%). As to communication activities, 27,6% of hospitals displayed videos on their homepage, and 56,% published also press releases. With respect to patients' engagement, 39,47% proposed to patients an online platform, and only 6,6% of them had also mobile apps. On the other hand, 61% of hospitals respected between 6 and 9 indicators (See Table 2) and only 7 hospitals respected 11 criteria: The Johns Hopkins Hospital (USA), Singapore General Hospital (Singapore), The Mount Sinai Hospital (USA), New York-Presbyterian Hospital-Columbia and Cornell (USA), UCSF Medical Center (USA), Rush University Medical Center (USA) and NYU Langone Hospitals (United States).

¹ Given that these hospitals try to become global brands, we only analyzed their English website, and not those in local languages (Chinese, French, etc.). Concerning Mayo Clinic in Jacksonville, Phoenix and Rochester, all of them shared the same corporate website: www.mayoclinic.org.

Table 2. Indicators Distribution

Number of indicators	Number of hospitals
12	0
11	7
10	7
9	14
8	7
7	13
6	13
5	6
4	8
3	1
2	0
1	0
0	24

Facebook

In this paper, we considered Facebook profiles on English, but also on local languages (Chinese, Spanish, French, etc.) because local patients around the world have the right to communicate in their local language when they interact with doctors through social media platforms². According to our data, 78% of hospitals had a corporate profile on this social media platform. Nevertheless, most of them did not fulfill all indicators related to identity: links to corporate websites (100%), corporate logo on the main profile image (98,72%), hospital's description (88,46%), milestones (26,92%), awards (10,26%), mission (3,84%), vision (2,56%) and brand values (2,56%). As to communication activities, most hospitals integrated videos (98,72%) and events section (96,15%). Finally, concerning patients' engagement, the best hospitals by number of likes and followers were Cleveland Clinic, Mayo Clinic and Hospital Israelita Albert Einstein (see Table 3). On the other hand, and considering only the 10 indicators related to identity and communication activities, 82,1% of hospitals respected between 5 and 6 indicators, and the only one fulfilling 9 criteria was Sunnybrook Health Sciences Centre (Canada).

Twitter

Concerning Twitter, we also considered both English and local languages profiles. We proved that 73% of hospitals had a corporate profile on this social media

² Some hospitals showed a link to Facebook on their local language corporate website, but not on the English version. Other hospitals displayed websites on their local language and included links to Facebook, but they did not have an English version for their corporate website. Concerning Mayo Clinic in Jacksonville, Phoenix and Rochester, all of them shared the same corporate profile on Facebook.

platform³. As to identity, hospitals respected some indicators (date when they joined the platform -100%-, links to corporate websites -98,63%-, logo on the main profile image -97,26%-), but not all of them (corporate description-71,23%-, health professionals or hospital's buildings on the main profile image -65,75%-, hashtags on the description -53,42%-, foundation date -2,74%- and links to other social media platforms -1,37%). With respect to communication activities, 97,26% of hospitals displayed a Media Section, and the three best ones in terms of followings were Samsung Medical Center (South Korea) -14,302 followings-, Sunnybrook Health Sciences Centre (Canada) -11,216- and Rush University Medical Center (USA) -8,876-. Finally, concerning patients' engagement, the best hospitals by number of likes were Hospital Clínic de Barcelona (Spain)- 44,600 likes-, Hospital Universitari Vall d'Hebron (Spain) -29,712- and Cedars-Sinai Medical Center (USA) -27,401-; and the best ones by number of followers were Mayo Clinic, Cleveland Clinic and the Johns Hopkins Hospital (see Table 4).

Youtube

With respect to Youtube, we also considered both English and local languages profiles. According to our analysis, 78% of hospitals displayed a corporate profile on this platform, but most of them did not fulfill most indicators related to identity: logo on the main profile image (99%), links to corporate websites (94,87%), corporate description (69,23%), milestones (12,82%), brand values (4%), awards (2,56%), mission (1,28%) and vision (1%)⁴. Concerning communication activities, 97% of hospitals had playlists and 43,59% also displayed channels. Finally, as to patients' engagement, the best hospitals by number of subscribers were Mayo Clinic (700.000), Ronald Reagan UCLA Medical Center and UCLA Medical Center Santa Monica (381 000), and Cleveland Clinic (278 000)⁵; and the best ones by number of views were Mayo Clinic, Cleveland Clinic, Ronald Reagan UCLA Medical Center and UCLA Medical Center Santa Monica (see Table 5). Finally, considering only the 10 indicators related to communication activities and identity, 69,2% of hospitals respected between 4 and 5 indicators, and the only hospital fulfilling eight indicators was Sunnybrook Health Sciences Centre (Canada).

³ Some hospitals showed a link to Twitter on their local language corporate website, but not on the English version. Other hospitals displayed websites on their local language and included links to Twitter, but they did not have an English version for their corporate website.

⁴ Some hospitals showed a link to Youtube on their local language corporate website, but not on the English version. Other hospitals displayed websites on their local language and included links to Youtube, but they did not have an English version for their corporate website.

⁵ Mayo Clinic Rochester, Phoenix and Jacksonville shared the Mayo Clinic's corporate profile on Youtube. On the other hand, Ronald Reagan UCLA Medical Center and UCLA Medical Center - Santa Monica shared the same corporate profile on Youtube: UCLA Medical Center. Finally, Hospital Gregorio Marañón, Hospital 12 de Octubre and Hospital Universitario La Paz shared the same Youtube profile: Salud Madrid.

Table 3. Hospitals by Number of Likes and Followers

	Hospital	Number of likes	Number of followers
1	Cleveland Clinic	2,027,605	1,952,374
2	Mayo Clinic - Rochester (USA)*	1,197,263	1,218,005
3	Mayo Clinic - Phoenix (USA)*	1,197,263	1,218,005
4	Mayo Clinic - Jacksonville (USA)*	1,197,263	1,218,005
5	Hospital Israelita Albert Einstein (Brazil)	833,642	841,785
6	Ospedale San Raffaele - Gruppo San Donato (Italy)	696,614	695,937
7	The Johns Hopkins Hospital (USA)	651,838	659,730
8	Istituto Clinico Humanitas (Italy)	598,799	597,097
9	Ronald Reagan UCLA Medical Center (USA)**	310,198	310,454
10	UCLA Medical Center - Santa Monica (USA)**	310,198	310,446

*Mayo Clinic Rochester, Phoenix and Jacksonville shared the same Mayo Clinic's corporate profile on Facebook: Mayo Clinic.

**Ronald Reagan UCLA Medical Center and UCLA Medical Center - Santa Monica shared the same corporate profile on Facebook: UCLA Medical Center.

Table 4. Hospitals by Number of Followers

	Hospital	Number of followers
1	Mayo Clinic - Rochester (USA)*	2,027,059
2	Mayo Clinic - Phoenix (USA)*	2,027,059
3	Mayo Clinic - Jacksonville (USA)*	2,027,059
4	Cleveland Clinic (USA)	1,930,483
5	The Johns Hopkins Hospital (USA)	608,743
6	Hospital Universitario La Paz (Spain)**	91,101
7	Hospital Universitario 12 de Octubre (Spain)**	91,101
8	Hospital General Universitario Gregorio Marañón (Spain)**	91,101
9	The Mount Sinai Hospital (USA)	86,541
10	UCSF Medical Center (USA)	70,265

*Mayo Clinic Rochester, Phoenix and Jacksonville shared the same Mayo Clinic's corporate profile on Twitter: Mayo Clinic.

** Hospital Universitario La Paz, Hospital Universitario 12 de Octubre and Hospital General Universitario Gregorio Marañón shared the same corporate profile on Twitter (Madrid Health Authority).

Table 5. Hospitals by Number of Views.

	Hospital	Number of views
1	Mayo Clinic - Rochester (USA)*	236,662,811
2	Mayo Clinic - Phoenix (USA)*	236,662,811
3	Mayo Clinic - Jacksonville (USA)*	236,662,811
4	Cleveland Clinic (USA)	89,753,324
5	Ronald Reagan UCLA Medical Center (USA)	77,724,149
6	UCLA Medical Center - Santa Monica (USA)	77,724,149
7	Asan Medical Center (South Korea)	56,496,481
8	University of Michigan Hospitals - Michigan Medicine (USA)	55,655,070
9	The Johns Hopkins Hospital (USA)	54,804,645
10	New York-Presbyterian Hospital-Columbia and Cornell (USA)	48,272,427

*Mayo Clinic Rochester, Phoenix and Jacksonville shared the same Mayo Clinic's corporate profile on Youtube.

**Ronald Reagan UCLA Medical Center and UCLA Medical Center - Santa Monica shared the same corporate profile on Youtube: UCLA Medical Center.

Discussion

Social media platforms offer the ability to engage entire populations at low cost, develop emotional support networks, connect patients and providers, and collect vast quantity of data about diseases (Prochaska, Coughlin & Lyons, 2017). Hospitals should implement research management programs allowing them to efficiently manage data gathered on these platforms (b, 2015) and this way implement performant communication strategies allowing them to improve their own corporate reputation (Gonzalez-Pacanowski & Medina Aguerrebere, 2018). To do that, the hospital's Corporate Communication Director consider four main aspects: a) communication objectives, b) main and secondary targets, c) brand positioning and d) evaluation. These elements constitute the hospital's corporate communication strategy on social media and determine all internal and external communication initiatives launched on these platforms.

Communication objectives. Organizations define consistent, strategic objectives in terms of communication, stakeholders' perceptions and organizational development (Zerfass & Viertmann, 2017). According to our results, most hospitals had a corporate website (76%), a profile on Facebook (78%), Twitter (73%) and Youtube (78%), and many of them respected many of the 48 key performance indicators considered on this paper, which means that most hospitals define strategic communication objectives before launching their campaigns on social

media platforms. Nevertheless, as shown above, some hospitals do not have an English version for their corporate website, which could make it more difficult for them to become global brands. In today's world, some stakeholders, such as patients, have become true opinion leaders (Becerra, Reina & Victoria, 2015) able to influence the hospital's public image (Maier, 2016), that is why these organizations should prioritize communication objectives aiming to influence patients: use of different languages, private platforms for patients, etc.

Main and secondary targets. Thanks to social media, hospitals disseminate accurate, updated information to establish long term relationships with patients (Yeob, Hawkins, Baker, Shah, Pingree & Gustafson, 2017); share stories with journalists working in different media companies (Kotsenas et al., 2018); and organize events in collaboration with public health authorities (De Las Heras-Pedrosa, Rando-Cueto, Jambrino-Maldonado & Paniagua-Rojano, 2020). Our findings proved that most hospitals analyzed prioritize patients as a main target: these organizations helped them to find medical information through publishing links to different websites on their corporate website (98,6%) and their profiles on Facebook (100%), Twitter (98,63%) and Youtube (94,78%). Nevertheless, they also considered other targets such as journalists (81.6% of hospitals displayed on their corporate website a link to the Communication Department, and 97,26% had a Media section on Twitter), foreign patients (77,63% of hospitals had a multilingual website, especia-

lly in Spanish and Chinese) and the society as a whole (on their corporate website, 94,7% of hospitals displayed link to health education sections; and on Facebook, 96,15% had a link to Events section).

Brand positioning. Social media usage by hospitals has increased dramatically during these last years (Taken, 2017) because these platforms are entirely consistent with traditional mechanisms of knowledge diffusion in medicine (Kotsenas et al., 2018). Besides, these platforms allow these organizations to improve their brand (Apen- teng et al., 2020). Nevertheless, our results showed that many hospitals did not consider these ideas: even if many of them used their logo on different platforms, most hospitals did not share branded related content such as their mission (3,84% on Facebook, 1,28% on Youtube), vision (2,56% on Facebook, 1% on Youtube) or brand values (2,56% on Facebook and 4% on Youtube). Besides, on Twitter only 2,74% of hospitals explained their foundation date, a historic element useful to reinforce the brand.

Evaluation. Hospitals should implement quantitative mechanisms for evaluating the relationships between their presence on social media and patients' behaviours (Apen- teng et al., 2020). Social media analytics allows hospitals to adapt their campaigns to stakeholders' attitudes (Noar, Leas, Althouse, Dredze, Kelley & Ayers, 2018) and improve their own business performance (Garga, Gupta, Dzever, Sivarajahc & Kumar, 2020). Most hospitals analyzed resorted to different criteria to evaluate their social media presence, such as number of likes and followers (Facebook and Twitter), or number of subscribers and views (Youtube). Our analysis proved that the most efficient hospitals on Facebook (number of likes and followers) were Mayo Clinic, Cleveland Clinic and Hospital Israelita Albert Einstein; on Twitter, Mayo Clinic (number of followers) and Hospital Clinic de Barcelona (number of likes); and, on Youtube, Mayo Clinic and UCLA Medical Center (number of subscribers), and Mayo Clinic and Cle- veland Clinic (number of views).

Our quantitative analysis about the best hospitals in the world allowed us to highlight three main trends. First, corporate websites are utilized as a journalistic and promotional tool (press releases, videos, links to treatments, etc.) and not as a corporate communication tool that hospitals manage to satisfy stakeholders' needs in terms of information (mobile apps, patients' platforms). Second, most hospitals do not take advantage of Facebook and Twitter's visibility to promote their brand architecture (identity, mission, vision, values and culture) and this way influence stakeholders' perceptions. And third, most hospitals prioritize Youtube as a health education tool, that is why they disseminated videos to show patients' experiences, doctors' expertise and hospitals' treatments.

Thanks to this analysis, we could better understand how the world's best hospitals managed their social media platforms as well as their corporate websites for promoting their brand. Nevertheless, we should also highlight three main limitations to our study concerning the lack of information about hospitals' corporate communication plans, patients' perceptions about hospitals' social presence, and the economic impact of these social presence on hospitals' internal functioning. We propose to researchers interested in developing this area to focus on some crucial topics for next years: integration of social media platforms into internal medical processes, use of Youtube for medical education initiatives and consultations, and design of personal branding plans for health professionals.

Conclusion

This paper aimed to analyze how the world's best hos- pitals managed social media platforms to disseminate brand related content and this way reinforce their re- putation. According to our quantitative analysis, we can affirm that most hospitals focus on basic branding ele- ments (logo, corporate description, etc.) and neglect the most important ones, such as the identity, vision, mis- sion or values. Besides, most of them do not integrate these elements into their main communication initiatives (videos, events, etc.), which makes it difficult for them to build an unambiguous, reputed brand. Finally, most hospitals do not integrate the 4 platforms analyzed (website, Facebook, Twitter and Youtube), which con- stitutes a barrier when trying to influence stakeholders' perceptions about the hospital's brand. In other words, most hospitals analyzed should professionalize still more their online corporate communication initiatives on social medial platforms. Otherwise, they will not be able to build a true reputed brand.

In order to conclude this analysis, we propose three last ideas as conclusion. First, hospitals need to evolve from a marketing, journalistic approach to a corporate communication approach allowing them to manage these platforms for disseminating corporate values and this way build a true meaningful brand for every stakeholder. Second, hospitals should disseminate a useful content for every stakeholder (health education initiatives, social engagements, etc.) rather than focusing only on medical treatments and patients' experiences. And third, hospitals have to implement learning activities to help employees become brand ambassadors able to use these platforms in an independent, corporate way. Based on these three conclusions, we also propose three managerial implica- tions: a) creating a Social Media Unit integrated by ex-

perts in public health and corporate communication able to work in a professional way according to protocols, annual plans, budgets and key performance indicators; b) investing in research in order to better know all stakeholders' needs in terms of information and this way adapt corporate communication strategies on social media; and c) implementing personal branding strategies for some health professionals in order to build the brand in a collective way.

Author Contributions

All authors participated equally in the preparation of the article and approved the final version presented.

Funding

No funding.

Data Availability Statement

The data presented in this study are available on request from the corresponding author.

Conflicts of Interest

The authors declare no conflict of interest.

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Annex 1. List of All Hospitals Analyzed

1. Mayo Clinic - Rochester (USA)
2. Cleveland Clinic (USA)
3. Massachusetts General Hospital (USA)
4. Toronto General - University Health Network (Canada)
5. The Johns Hopkins Hospital (USA)
6. Charité - Universitätsmedizin Berlin (Germany)
7. Karolinska Universitetssjukhuset (Sweden)
8. Singapore General Hospital (Singapore)
9. Centre Hospitalier Universitaire Vaudois (Switzerland)
10. Sheba Medical Center (Israel)
11. AP-HP - Hôpital Universitaire Pitié Salpêtrière (France)
12. Universitätsspital Zürich (Switzerland)
13. Stanford Health Care - Stanford Hospital (United States)
14. Universitätsklinikum Heidelberg (Germany)
15. Rigshospitalet - København (Denmark)
16. The University of Tokyo Hospital (Japan)
17. Ronald Reagan UCLA Medical Center (USA)
18. St. Luke's International Hospital (Japan)
19. The Mount Sinai Hospital (USA)
20. AP-HP - Hôpital Européen Georges Pompidou (France)
21. Helsinki University Hospital (Finland)
22. UMC Utrecht (The Netherlands)
23. University of Michigan Hospitals - Michigan Medicine (USA)
24. Klinikum der Universität München (Germany)
25. Brigham And Women's Hospital (USA)
26. Sunnybrook Health Sciences Centre (Canada)
27. Allgemeines Krankenhaus der Stadt Wien - Medizinischer Universitätscampus (Germany)
28. Oslo Universitetssykehus (Norway)
29. Klinikum rechts der Isar der Technischen Universität München (Germany)
30. Mount Sinai Hospital (Canada)
31. UZ Leuven - Campus Gasthuisberg (Belgium)
32. Aarhus Universitetshospital (Denmark)
33. New York-Presbyterian Hospital-Columbia and Cornell (USA)
34. Asan Medical Center (South Korea)
35. Universitätsspital Basel (Switzerland)
36. Hospital Israelita Albert Einstein (Brazil)
37. Duke University Hospital (USA)
38. Hospital Clínic de Barcelona (Spain)
39. Hôpitaux Universitaires de Genève (HUG) (Switzerland)
40. Medizinische Hochschule Hannover (Germany)
41. Mayo Clinic - Phoenix (USA)
42. Seoul National University Hospital (South Korea)
43. Kameda Medical Center (Japan)
44. St Thomas' Hospital (UK)
45. Policlinico Universitario A. Gemelli (Italy)
46. Akademiska Sjukhuset (Sweden)
47. Amsterdam UMC (The Netherlands)
48. University College Hospital (UK)
49. Landeskrankenhaus Universitätsklinik Innsbruck (Austria)
50. Cedars-Sinai Medical Center (USA)
51. Hospital Universitario La Paz (Spain)
52. Policlinico Sant'Orsola-Malpighi (Italy)
53. CHU Lille - Hôpital Claude-Huriez (France)
54. Turku University Hospital (Finland)
55. UCLA Medical Center - Santa Monica (USA)
56. The Royal Victoria Infirmary (UK)
57. The Alfred (Australia)
58. Northwestern Memorial Hospital (USA)
59. North York General Hospital (Canada)
60. Haukeland Universitetssykehus (Norway)
61. Hospital of the University of Pennsylvania - Penn Presbyterian (USA)
62. Kyushu University Hospital (Japan)
63. Universitätsklinikum Tübingen (Germany)

64. Clinica Universidad de Navarra (Spain)
65. UCSF Medical Center (USA)
66. Tampere University Hospital (Finland)
67. Hospital General Universitario Gregorio Marañón (Spain)
68. Universitätsklinikum Hamburg-Eppendorf (Germany)
69. Houston Methodist Hospital (USA)
70. CHU Bordeaux - Groupe Hospitalier Pellegrin (France)
71. Center Hospital of the National Center for Global Health and Medicine (Japan)
72. Grande Ospedale Metropolitano Niguarda (Italy)
73. Samsung Medical Center (South Korea)
74. Leids Universitair Medisch Centrum (The Netherlands)
75. Rush University Medical Center (USA)
76. Severance Hospital - Yonsei University (South Korea)
77. Universitätsklinikum Freiburg (Germany)
78. Hospital Moinhos de Vento (Brazil)
79. Istituto Clinico Humanitas (Italy)
80. Hôpital Paris Saint-Joseph (France)
81. Royal Melbourne Hospital - Parkville (Australia)
82. Mayo Clinic - Jacksonville (USA)
83. Universitätsklinikum Köln (Germany)
84. Kyoto University Hospital (Japan)
85. Universitätsklinikum Essen (Germany)
86. NYU Langone Hospitals (United States)
87. Seoul National University - Bundang Hospital (South Korea)
88. Ospedale San Raffaele - Gruppo San Donato (Italy)
89. The Catholic University Of Korea - Seoul St. Mary's Hospital (South Korea)
90. Universitätsklinikum Erlangen (Germany)
91. Kurashiki Central Hospital (Japan)
92. CHU Toulouse - Hôpital Purpan (France)
93. IRCCS Arcispedale Santa Maria Nuova (Italy)
94. Polyclinique Santé Atlantique (France)
95. University of Washington Medical Center (USA)
96. Hospital Universitario 12 de Octubre (Spain)
97. Korea University - Anam Hospital (South Korea)
98. Azienda Ospedaliera di Padova (Italy)
99. Hospital Universitari Vall d'Hebron (Spain)
100. Hospices Civils de Lyon - Hôpital Lyon Sud (France)