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# The communication role: the use of social networking sites in primary health care

O papel da comunicação: a utilização das redes sociais nos cuidados de saúde primários

# Andreia Garcia and Mafalda Eiró-Gomes

Translator: Andreia Garcia and Mafalda Eiró-Gomes



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# THE COMMUNICATION ROLE: THE USE OF SOCIAL NETWORKING SITES IN PRIMARY HEALTH CARE

#### Andreia Garcia

Public Relations and Organizational Communication Department, College of Communication and Media Studies, Polytechnic Institute of Lisbon, Portugal / ISCTE, University Institute of Lisbon, Portugal

### Mafalda Eiró-Gomes

Public Relations and Organizational Communication Department, College of Communication and Media Studies, Polytechnic Institute of Lisbon, Portugal

#### ABSTRACT

It is well known that the growth of users on social networking sites has forced many institutions to consider the relevance of this communication channel. However, nothing is known about the use of social networking sites by the ACeS - Agrupamentos de Centros de Saúde, public services integrated in the Portuguese health service (Serviço Nacional de Saúde [SNS]), whose mission is to provide primary health care, the health's promotion and disease's prevention as well as the connection to other services for the continuity of healthcare. At the time of its creation, in 2008, the government recognized that primary health care is the central pillar of the health system. It is argued in this study that communication should be oriented towards fulfilling the mission of the institutions. In this way, it is intended to understand how the communication process by these SNS institutions, particularly those that use social networking sites, is contributing to the fulfilment of their organisational missions. The objectives of this study were to identify the ACeS that are present on Facebook and to analyze the communication that has been developed there. The corpus of analysis consisted of the universe of all the ACeS existing in Portugal. The sources of our data were all public publications on the ACeS Facebook pages in 2018. For the systematic analysis of the data (analysis of the manifest messages), it was used the method of content analysis both with a quantitative and qualitative nature.

#### **KEYWORDS**

communication; public relations; health promotion; primary health care; agrupamentos de centros de saúde

# O PAPEL DA COMUNICAÇÃO: A UTILIZAÇÃO DAS REDES SOCIAIS NOS CUIDADOS DE SAÚDE PRIMÁRIOS

# **Resumo**

Sabe-se que o crescimento dos utilizadores das redes sociais obrigou muitas instituições a considerar a relevância deste canal de comunicação. Nada se sabe, contudo, sobre a utilização das redes sociais pelos ACeS – Agrupamentos de Centros de Saúde, serviços públicos integrados no Serviço Nacional de Saúde (SNS), que têm por missão a prestação de cuidados de saúde primários, a promoção da saúde e prevenção da doença e a ligação a outros serviços para a continuidade dos cuidados. No ato da sua criação, em 2008, o governo reconheceu que os cuidados de saúde primários são o pilar central do sistema de saúde. Defende-se, neste estudo, que a comunicação deve estar orientada para o cumprimento da missão das instituições. Deste modo,

pretende-se perceber de que forma a comunicação desenvolvida por estas instituições do SNS, particularmente a que recorre às redes sociais, está a contribuir para o cumprimento das suas missões organizacionais. Os objetivos deste estudo foram identificar os ACeS que estão presentes no Facebook e analisar a comunicação que aí tem sido desenvolvida. O *corpus* de análise foi constituído pelo universo de todos os ACeS existentes em Portugal. As fontes dos nossos dados foram todas as publicações públicas nas páginas de Facebook dos ACeS em 2018. Para a análise sistemática dos dados (análise das mensagens manifestas), utilizou-se o método de análise de conteúdo tanto com cariz quantitativo como qualitativo.

#### PALAVRAS-CHAVE

comunicação; relações públicas; promoção da saúde; cuidados de saúde primários; agrupamentos de centros de saúde

## Introduction

The development of the internet¹ and the accelerated growth of social networks² have allowed the emergence of different communication platforms. Today, organisations communicate regularly with their audiences, using the internet, through one-to-one (email), one-to-many (website) and many-to-many (social networks) communication (Avidar, 2017).

For public relations professionals (PR), this new phase of communication should be seen as an opportunity, as the environment is more conducive to interactions and relationships development (Solis & Breakenridge, 2009). Thus, if the internet is based on the exchange of information (Phillips & Young, 2009), PR practioners are asked, however, not only to inform but also to build relationships.

Even so, the PR function remains the same, that of seeking the fulfillment of organization's mission and objectives, as Jane Wilson (2012) argues, the practice of public relations cannot be thought independently from the change and the evolution of the communication context.

Since the trend will be for internet users to increase (in Portugal the growth rate is around 3,7%<sup>3</sup>), and since the use of social networking sites<sup>4</sup>, and more specifically Facebook<sup>5</sup>, follows this evolution, the potential of these new communication channels for health promotion and disease prevention cannot be omitted (Eng, Maxfield, Patrick, Deering, Ratzan & Gustafson, 1998).

<sup>&</sup>lt;sup>1</sup> According to Internet World Stats data, about 4.346.561.853 people around the world access the internet, which is equivalent to 56,1% of the world's population (information regarding 2019 retrieved from https://www.internetworldstats.com).

<sup>&</sup>lt;sup>2</sup> For a definition of various terms related to social media see Phillips and Young (2009, pp. 10-22).

<sup>&</sup>lt;sup>3</sup> Data for the period from January 2018 to January 2019 (We Are Social & Hootsuite, 2019). In the period from January 2017 to January 2018, the growth rate of internet users in Portugal was 7% (We Are Social & Hootsuite, 2018).

<sup>&</sup>lt;sup>4</sup> In Portugal, 65% of the population is actively on social networking sites, where they spend around 2ho9m daily (We Are Social & Hootsuite, 2019).

<sup>&</sup>lt;sup>5</sup> According to the 2019 Hootsuite Digital report (We Are Social & Hootsuite, 2019), 90% of internet users in Portugal are on Facebook, the social network with the highest number of users.

Thus, with these new channels, there are more opportunities to communicate health (Moorhead, Hazlett, Harrison, Carroll, Irwin & Hoving, 2013) and to positively influence people's behavior on a larger scale (Austin, 2012).

This study aims to understand the use of Facebook by Agrupamentos de Centros de Saúde (ACeS) in the process of communicating with their audiences and to reflect on the contribution of this channel to the fulfilment of their organisational missions (Bryson, 2016, p. 247), i.e., to health promotion and disease prevention.

# Public relations and health communication

The concept of health can be described as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 1998, p. 1).

In Portugal, the government has ensured the right to health protection through the portuguese health service (Serviço Nacional de Saúde [SNS]) since 1979. The SNS includes all health care services from promotion and surveillance to disease prevention, diagnosis, treatment and medical and social rehabilitation (Decree Law no. 56/1979).

The government also recognises that primary health care<sup>6</sup> is the central pillar of the health system and in order to increase citizens' access to health care, in 2008, it created the Agrupamentos de Centros de Saúde (ACeS), public services with administrative autonomy, consisting of several functional units, in different geografic areas (Decree Law no. 28/2008).

Within the SNS, as part of their organisational missions, the ACeS are responsible for the development of health promotion<sup>7</sup> and disease prevention<sup>8</sup> activities, as well as the provision of primary health care and links to other services for the continuity of care (Decree Law no. 28/2008).

This article argues that the Agrupamentos de Centros de Saúde should use communication to fulfil their mission, i.e. to promote health and disease prevention.

It is also argued that the use of communication should be the responsibility of a public relations practioner. Therefore, the use of communication is considered in its strategic vision, which is seen as a function that contributes to the achievement of the objectives and to the fulfilment of the organisational mission (Eiró-Gomes & Nunes, 2013), and specially as a way to promote change.

In this way, educating their audiences, leading them to the course of change can be one of the objectives of public relations (Lesley, 1997). As Nunes (2011) expressed "it is

<sup>&</sup>lt;sup>6</sup> For the World Health Organization (1998), primary health care can be defined as "essential health care made accessible at a cost a country and community can afford, with methods that are practical, scientifically sound and socially acceptable" (p. 3).

<sup>&</sup>lt;sup>7</sup> Health promotion is the process of increasing people's ability to control their health in order to improve it. This process goes beyond the focus on individual behavior to a wide range of social, economic and environmental interventions, as described by the World Health Organization (1998).

<sup>&</sup>lt;sup>8</sup> Disease prevention is considered an action aimed at individuals and populations with identifiable risk factors, often associated with different risk behaviors (World Health Organization, 1998).

increasingly important for PRs that their focus is truly placed on publics, finding effective ways to empower them so they can themselves be the authors of change" (p. 53).

And it is from this concept that the notion of health communication is reached, which due to its multifaceted and multidisciplinary approach (Schiavo, 2007) can contribute to health promotion and disease prevention, by influencing a change in behaviors and attitudes, both at an individual and at a community level.

Thus, health communication is much more than the transmission of information. As described by the John Hopkins Center for Communication Programs, it is a contribution to change, it is a field in motion (Piotrow, Rimon, Payne Merritt & Saffitz, 2003).

One of the privileged health communication channels for the dissemination of information to the population is the internet/social networking sites (Berry, 2007) and its use by patients for health-related reasons is growing (Smailhodzic, Hooijsma, Boonstra & Langley, 2016; Van De Belt, Berben, Samson, Engelen & Schoonhoven, 2012). As Asano (2017) described, a person currently spends more time on social networking sites than eating, drinking or socializing.

With social networking sites, people go from being passive readers to having a role in the information dissemination process (Breakenridge, 2008), to sharing ideas, contents, thoughts and establishing relationships. In this medium, anyone can create, download or share content (Siapera, 2018), whether in text, sound, video or image (Scott, 2009).

The main benefits of using social networking sites were identified in a more comprehensive survey that analysed 98 studies published between 2002 and 2012: (1) increasing interactions with others; (2) more available, shared and adapted information; (3) increasing accessibility and widening access to health information; (4) social/emotional support; (5) public health surveillance; and (6) possibility to influence health policy (Moorhead et al., 2013).

Social networking sites are also an opportunity for organizations to foster dialogical communication and build relationships with their main audiences (Cho & Schweickart, 2015). For Joel Postman (2009) there are six attributes that make social networks a powerful tool for organizations to communicate: "authenticity, transparency, immediacy, participation, connectivity, responsibility" (p. 8). They also enable "accessible, fast and direct" communication (Mundy, 2017, p. 255) between an organisation and their stakeholders.

Breakenridge (2008) points out that there is an expansion in the number of communication channels (one-to-one, one-to-many, and now many-to-many) and with social media, public relations must focus, more than ever, on people so they can follow the "conversation" (p. 79).

Grunig (2009) argues that social networking sites play a crucial role in public relations practices such as reaching global audiences, implementing two-way symmetrical communication and building relationships with others.

In fact, the truth is that the use of social networking sites, and specifically Facebook<sup>9</sup> by people and organizations is increasing<sup>10</sup>. Facebook is one of the most popular communication platforms. It is estimated that it has around 1,52 billion active users daily, which represents a growth of 9% per year<sup>11</sup>. Its potential in health communication has been recognized by several academic studies (Burton, Henderson, Hill, Graham & Nadarynski, 2019; Gold, et al., 2011; Woolley & Peterson, 2012). Enrico Coiera (2003) argues that Facebook has the potential to change not only the way health care is provided, but also the way some diseases are treated.

## RESEARCH DESIGN

## PROCEDURES FOR DATA COLLECTION AND ANALYSIS

This work is based on a pragmatic research paradigm. This view of the world is characterized by the concern with the application of research results and the freedom of choice on the part of researchers about the research procedures (qualitatives or quantitatives) that best suit their objectives.

It is considered an exploratory study, since there is no research on this topic so far; and descriptive<sup>12</sup>, as it aims to analyze and characterize the communication developed by the Agrupamentos de Centros de Saúde (ACeS) in the year 2018, on their Facebook pages.

Thus, the target population of this study consisted of the universe of all ACeS existing in Portugal, according to the indications on the website of the Portuguese Ministry of Health (totaling 55 ACeS)<sup>13</sup>, with publications visible on its Facebook page (active at the time of the study), in the period from January to December 2018.

In data collection, in order to map the ACeS present on Facebook, an initial search was carried out on the search engine of this social networking sites for the terms "ACeS", "Agrupamentos de Centros de Saúde" and the full name of the ACeS, in order to identify the respective pages. This survey was conducted in February 2019 by two different Facebook accounts in two different browsers, since the Facebook search box adapts what is found according to previous surveys.

A total of 17 references were found on Facebook, eight were included in the study (Table 1) and nine were excluded (Table 2). Two ACeS have a personal profile and therefore these profiles were excluded from the study due to Facebook's policy to prohibit the

<sup>&</sup>lt;sup>9</sup> Facebook can be defined as a social networking service (also social networking site) or a micro website that allows people to share interactive content between a network of friends (Phillips & Young, 2009, p. 26). Founded in 2004, Facebook's mission is to give people the power to build a community and bring the world closer together. People use Facebook to stay in touch with friends and family, to find out what's happening in the world, and to share and express what's important to them (retrieved from https://newsroom.fb.com/company-info/).

<sup>&</sup>lt;sup>10</sup> According to Facebook, 16 million company pages were created in May 2013, which represents an increase of 100% in relation to the eight million in June 2012 (retrieved from https://newsroom.fb.com/company-info/).

<sup>11</sup> Retrieved from https://newsroom.fb.com/company-info/

<sup>&</sup>lt;sup>12</sup> Descriptive studies aim to "name, classify, describe a population or conceptualize a situation" (Fortin, 2003, p. 138).

<sup>13</sup> Retrieved from https://www.sns.gov.pt/institucional/entidades-de-saude/

use of personal profiles by companies<sup>14</sup>. Four ACeS present unpublished pages in 2018 and for this reason were not included in the study. The Núcleo de Internos do ACeS Cávado II Gerês/Cabreira page, despite having 20 publications visible in 2018, has been inactive since September 25 of this year and for this reason was excluded from this project. The ACeS Cávado I - Braga has two pages on Facebook, one active, included in this study, and one inactive since 2013.

FACEBOOK PAGE URL	
https://www.facebook.com/Unidade-de-Sa%C3%BAde- P%C3%BAblica-do-ACES-Alentejo-Central-744998819025032/	
https://www.facebook.com/acesbraga/	
https://www.facebook.com/acesedvan/	
https://www.facebook.com/acesdouronorte/	
https://www.facebook.com/ ACES-Douro-Sul-1222608187806280/	
https://www.facebook.com/aces.santotirso.trofa/	
https://www.facebook.com/ ArslvtAcesOesteNorteGabineteDoCidadao/	
https://www.facebook.com/acesportoocidental/	

Table 1: References included in the study

Name of ACeS	Facebook page URL	Reason for exclusion
ACeS Aveiro Norte	https://www.facebook.com/profile.php?id=100009229432144	Friends profile page
ACeS Cávado II Gerês/Cabreira	https://www.facebook.com/N%C3%BAcleode-Internos-ACES-C%C3%A1vado-II-Ger%C3%AAsCabreira-573319813048166/	Inactive since September 25, 2018
ACeS Cávado I Braga	https://www.facebook.com/ ACeS-C%C3%A1vado-I-Braga-352543148185635/	Inactive since May 31, 2013
ACeS do Sotavento Algarvio	https://www.facebook.com/ACES.Sotavento/	No publications in 2018
ACeS Lisboa Oci- dental e Oeiras	https://www.facebook.com/aceslxocidoeiras/	No publications in 2018
ACeS Oeiras	https://www.facebook.com/ UCC-Sa%C3%BAdar-ACES-Oeiras-219363191420148/	No publications in 2018
ACeS Oeste Norte	https://www.facebook.com/Gabinete-do-Cidad%C3%A3o- Aces-Oeste-Norte-276486009164526/	No publications in 2018

<sup>&</sup>lt;sup>14</sup> For the difference between a page and a profile see https://www.facebook.com/help/337881706729661

ACeS Oeste Sul	https://www.facebook.com/Ijornadasurapoestesul/	No publications in 2018
ACeS Porto Ocidental	https://www.facebook.com/aces.portoocidental.98	Friends profile page

Table 2: References excluded from the study

After selecting the pages to be included in this study, data were collected using the observation method that allows "documenting activities, behaviors and physical characteristics without having to depend on the will and capacity of third parties" (Coutinho, 2018, p. 136), i.e., the researchers themselves directly collect the information (Quivy & Campenhoudt, 2017).

In a first phase, a descriptive analysis of the general characteristics of the Facebook pages included in the research was carried out, taking into account the following topics:

- page name: ACeS identification on the Facebook page;
- page creation: date the page was created;
- profile photo: type of photo present in the profile, if logo or other chosen photo;
- description: identification of the ACeS description in the "about" tab of the page;
- mission: identification of the ACeS mission in the "about" tab of the page;
- events: identification of the events created in the "events" tab of the page;
- followers: current number of followers on the page;
- reviews and/or recommendations made on the page in a visible manner;
- rating: average score given by the user to the page, from one to five stars.

In order to capture all the publications on the Facebook pages of the ACeS under study, we used Netvizz 1.6<sup>15</sup>, a research tool developed by the Digital Methods Initiative laboratories, which aims to obtain information from Facebook pages and groups (Umair, Nanda & He, 2017). The application runs directly on Facebook and allows, through the "Page Data" module, to gather in a list all posts and comments published either by the pages or by other users, with their access links. For this research we extracted 2.042 publications (including 16 visitor publications on the pages) and 153 comments.

After the data collection, following Michaelson and Stacks (2017) we decided to proceed with a simple content analysis of the manifest messages and identified each publication and each comment, whether posted by the page or by its visitors, as a unit of analysis. Thus, this research focused on 2.195 units of analysis.

The data were analyzed according to the following dimensions, categories and sub-categories.

# ACeS activity on Facebook:

• authorship: identification of whether the content was created by ACeS or is shared content from another entity Facebook page or from an external website;

<sup>&</sup>lt;sup>15</sup> Available at https://apps.facebook.com/107036545989762/

- publication type: identification of whether the main content of the publication is solely text; an image and/or photo; a video or a link that forwards to a website external to Facebook;
- theme of the publication: identification of the main subject of the publication (data-drive strategy):
  - ephemerides: publications that mark commemorative dates such as World Food Day (October 16) and events/initiatives related to the celebrations of these days such as screenings on World Aids Day (December 01) and lectures on World Oral Health Day (March 20). All publications that mention the words "in the context of World Day celebrations..." or "to mark World Day", i.e. whenever there is specific reference to the world or national day being marked, are included. Also included are commemorative dates such as European HIV-Hepatitis Test Week 2018 and Antibiotic Month;
  - health promotion/disease prevention: publications whose content encourages the improvement of health or the adoption of behaviours that prevent the disease, as long as they are not inserted in ephemerides or commemorations of world or national days, such as general recommendations for the population on winter food; call for vaccination against influenza; care on very hot days and/or promotion of physical activity;
  - studies: publications whose main content is related to scientific studies and investigations such as "there is lack of brains there is no other way to say it. Neuroscientists need brain tissue to study diseases that affect more than 15% of the world's population" or "butrition researchers are constantly scrutinising the health benefits of food". All publications with references to words such as "study", "survey", "research", "research", "researchers", "scientists" are inserted;
  - events: publications that refer to initiatives or events, as long as they are not related to the celebrations of the anniversaries:
    - ACeS events: publications mentioning initiatives (such as lectures, conferences, congresses, training sessions, meetings) promoted by the ACeS, announcement of dates, programme, registration and/or sharing of photographs;
    - events of other institutions: publications that mention initiatives promoted by other institutions (such as lectures, conferences, congresses, trainings, meetings), announcement of dates, program, registration and/or sharing of photographs. There is no direct participation of ACeS;
  - news: publications with an informative character:
    - ACeS news: publications related to opening hours, hiring of professionals, compliments to
      the team, contacts, good wishes and/or new services available at ACeS. Also included are
      publications about ACeS newsletters/information bulletins. Publications related to ephemerides, events and studies are excluded;
    - mass media news: publications that share news published in the media and that are neither related to ephemerides nor to events or studies;
  - participation in the mass media: publications that publicise the presence of the ACeS in interviews in the media or that share the image of the news already published. Example: "Canal Saúde+ interview about the +sports project" or "in the next hour we will be on air at Radio Telefonia do Alentejo... Come with us!";
  - general information: publications related to useful information addressed to the user, but not promoted by ACeS, such as the MySns portal, paperless examinations, reporting of adverse drug reactions;
  - other: publications updating profile photo and/or cover photo of the ACeS, and others that are not integrated in the above.

# User interaction with other pages/entities:

- source: origin of publications shared by ACeS:
  - type of sharing:
    - Facebook: publications shared by ACeS from other Facebook pages;
    - websites: publications shared by ACeS from a website external to Facebook;
  - entity/institution:
    - Facebook: entity or institution mentioned as the main source of publication shared through another Facebook page;
    - websites: entity or institution mentioned as the main source of the shared publication through a website.

# Interaction of users with the ACeS Facebook pages:

- interaction: publications with reactions made by your followers. On Facebook interaction is considered as the use of the available options to show interest: "like", "comment" and "sharing";
  - reaction type:
    - like: publications on the ACeS website that have received a "like" from their users;
    - share: publications on the ACeS website that have been shared by its followers;
    - comments: publications that registered a response:
      - authorship: origin or source of the comment, if made by the ACeS itself or by a follower;
      - content: classification of comments in terms of content:
        - positive: compliments in general; interaction with ACeS, e.g. greetings such as good morning, good night, good weekend; identification in the publication of another user, by marking a name, accompanied by a positive comment. Example: "and we have an Intensive Support Consultation for Smoking Cessation in the 3 municipalities of our ACES";
        - neutral: manifestations not related to the subject; identification in the publication of another user, through the marking of a name, without any comment;
        - negative: comments hidden from the chronology; expressions of dissatisfaction, indignation and/or complaint; identification in the publication of another user, through the marking of a name, with negative comment. Example: "THESE ARE JUST LIES".

For the treatment of the data, an analysis grid were elaborated in an Excel database, where the publications and comments were included. For the treatment of the results, charts and graphs were made based on simple statistical operations, performed in the Excel program.

# Presentation and discussion of results

Of the 55 Agrupamentos de Centros de Saúde (ACeS) that currently exist in the SNS, only eight provide an active Facebook page with publications in 2018, which represents around 15%.

The entry of these institutions, created from 2008, in this social network, can be considered late, since the first Facebook page appeared on 29 June 2012, by ACeS Porto Ocidental. The following year, the ACeS Oeste Norte page was created on January 08.

The last page to be created was that of the Unidade de Saúde Pública do ACeS Alentejo Central, on 3 January 2018.

The different pages do not follow a standard nomenclature, ranging from the full name of the entity (e.g. Agrupamentos de Centros de Saúde Cávado I - Braga) to the abbreviation of the word Agrupamento de Centros de Saúde (e.g. ACES Douro Sul), and the inclusion of the Regional Health Administration to which ACES belongs (e.g. ARSLVT ACES Oeste Norte - Gabinete do Cidadão).

The logo is the profile photo chosen on all the pages analyzed, with the exception of ACeS Oeste Norte which presents a photo of its facilities.

Page descriptions available on the "about" tab of the respective Facebook page are brief (e.g. "Agrupamento de Centros de Saúde do Porto Ocidental" or "Agrupamento de Centros de Saúde de Entre Douro e Vouga de Aveiro Norte").

It is important to note that only three ACeS present their mission on the respective page of the social network under study (Table 3).

FACEBOOK PAGE NAME	Mission (about)	
ACeS Porto Ocidental	ACeS Porto Ocidental seeks to guarantee the citizens of its area of influence access to quality primary health care and to obtain health gains.	
ACES Entre Douro e Vouga II Aveiro Norte	The Agrupamento de Centros de Saúde de Entre Douro e Vouga II - Aveiro Norte (ACeS Aveiro Norte) aims to be represented by a group of professionals motivated to improve the quality of health of the population that includes, through health promotion, disease prevention and care provision.	
ACES Douro Norte	Guarantee the provision of primary health care to the population in its geographical area, seeking to maintain the principles of equity and solidarity, so that all population groups equally share the scientific and technological advances made in the service of health and well-being.	

Table 3: Mission of ACeS Facebook pages

In 2018, ACeS did not register any events in the tab that Facebook provides for that purpose.

On the other hand, in the Facebook tab for criticism, we found three criticisms/recommendations on the pages of the Unidade de Saúde Pública do Alentejo e ACeS Grande Porto (Figure 1).



Figure 1: Criticisms/recommendations on the pages of the ACeS under study

The average rating given to pages varies between four and five values (on a scale of one to five stars). ACeS Cávado I Braga and ACeS Oeste Norte do not have enough criticisms/recommendations to be given a rating by Facebook.

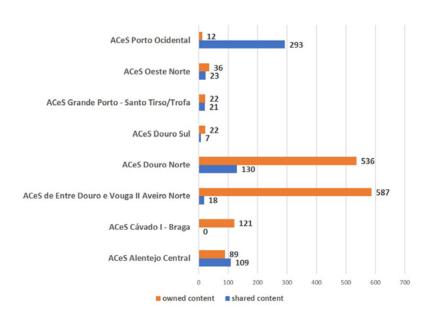
Finally, in the general characterisation of the pages under study, it is important to note that the number of followers varies between a minimum of 384 for the ACeS Grande Porto - Santo Tirso/Trofa and a maximum of 2.305 for the ACeS Douro Norte.

## ACES ACTIVITY ON FACEBOOK

In 2018, the Agrupamentos de Centros de Saúde published 2.026 publications on their mural on Facebook (Graph 1), the overall equivalent of an average of five daily publications (among all the pages).

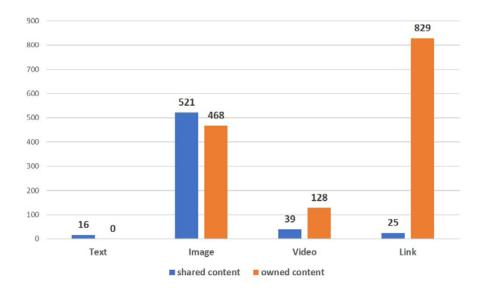
However, most posts are not their owned content (this represents only 30%), but shared content from other Facebook pages or links to websites outside Facebook.

On the one hand, in the year under review, there were no publications with their own content on the ACeS Cávado I - Braga website, which only has shared publications; on the other hand, ACeS Porto Ocidental published 293 own contents in 2018, being the entity with the highest number of own publications.



Graph 1: Publications (owned and shared) by ACeS

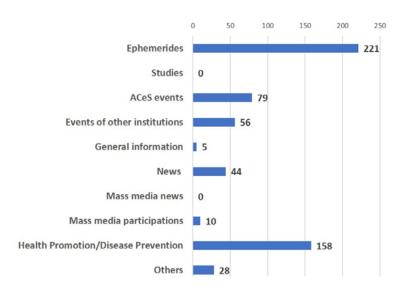
In terms of type of publications (owned or shared authorship), during the observation period, it was found that more emphasis was given to contents in image and/or photo format, corresponding to 49%, followed by publications with external links with 42%, videos with 8% and text in 1% of cases (Graph 2).



Graph 2: Publications by type (No.)

Regarding owned content, in 2018, only 39 publications had as their main content a video and only 16 were made up of text only.

With regard to the main messages conveyed by the publications made by the ACeS (of its authorship), in 2018, on Facebook (Graph 3), it can be seen that the celebration of the anniversaries is the most prominent theme with 221 publications (equivalent to 37% of all publications), soon followed by the publications that intend to contribute to health promotion (158 publications representing 26%), the dissemination of own events (79 publications) and of other institutions (56 publications) and news (44 publications).



Graph 3: Publications with ACeS owned content, by theme (No.)

It should be noted, however, that although the theme of events (owned or shared from other institutions) corresponds to 296 publications visible on the feeds of the ACeS pages in 2018, no event was registered in the tab that Facebook provides for this purpose.

It should be noted that, overall, the theme of health promotion was the one with the greatest expression, with 676 publications (158 from owned content and 518 from shared content). We believe that this result may indicate that ACeS intend to disseminate informations to health promotion, but do not have the resources to create those informations, so they share topics from other Facebook pages and/or websites.

To conclude the analysis of the ACeS activity on Facebook, it should be noted that we observed only 15 responses to comments (of the 153 existing ones), and two responses to criticisms/recommendations, in the year under analysis. In addition, 63% of the comments were not answered by the ACeS and 24 comments (16%) were placed by the ACeS itself in response to its own publication (Figure 2), 21 of them with a personal style language (performed by the Unidade de Saúde Pública do ACeS Alentejo Central).



Figure 2: Examples of publications with comments made by the ACeS themselves

# Interaction of ACeS with other pages/entities

With regard to the interaction of ACeS with other pages/entities, we found that there is a high dependence on external sources for the maintenance of the respective active pages, i.e., in 2018, 789 publications were shared from other pages on the Facebook (a total of 59 sources) and 636 publications were shared from external links to Facebook (from 60 sources).

The page of the Portuguese health service (SNS)<sup>16</sup> was the source where the ACeS most used, in 2018, to have publications on their feeds (55%), followed by the page of the Direção-Geral da Saúde<sup>17</sup> (23%). In all ACeS, without exception, shared publications from the SNS Facebook page were observed.

It should also be noted that there are 32 publications, in english, shared directly from the Facebook World Health Organization (WHO) page<sup>18</sup>, most of which were registered on the ACeS Entre Douro e Vouga II Aveiro Norte feed (Figure 3). The Facebook

<sup>&</sup>lt;sup>16</sup> Available at https://www.facebook.com/sns.gov.pt/

<sup>&</sup>lt;sup>17</sup> Available at https://www.facebook.com/direcaogeralsaude/

<sup>&</sup>lt;sup>18</sup> Available at https://www.facebook.com/WHO/

page of the Instituto Português do Sangue e da Transplantação<sup>19</sup> was the source of 18 publications.



Figure 3: Examples of publications shared in English

On the other hand, the main source of publications with external links (Table 4), i.e. whose main content is a link that directs the user to another web page, is the online press and the news on these published sites (57%), the website Atlas da Saúde<sup>20</sup> being the largest with 143 publications, followed by the portal Sapo Lifestyle<sup>21</sup> (51 references).

The publications that refer to the website of the Portuguese health service (SNS) correspond to 19% and to the website of the Direção-Geral da Saúde to 5%.

Name of the mass media	No. of references
A Voz de Trás os Montes	1
Atlas das Saúde	143
Dinheiro Vivo	1
Diário de Notícias	2
Dnotícias	1
Expresso	2
Ionline	1
Jornal das Caldas	5
Jornal Médico	3
MAAG	30
National Geographic	11
Notícias ao Minuto	1
Notícias Magazine	7
Observador	45
P <sub>3</sub>	1
Portal Sapo 24	1
Portal Sapo Lifestyle	51

 $<sup>^{19}</sup>$  Available at https://www.facebook.com/Instituto-Portugu%C3%AAs-do-Sangue-e-da-Transplanta%C3%A7%C3%A3o-IP-216964194998749/

<sup>20</sup> Available at www.atlasdasaude.pt

<sup>&</sup>lt;sup>21</sup> Available at https://lifestyle.sapo.pt/

Público	11	
Região de Leiria	1	
Região do Sul	1	
RTP online	2	
Saúde Online	1	
SIC Notícias	1	
Sul Informação	1	
Torres Vedras Web	1	
TSF	2	
Visão	39	

Table 4: Main mass media source of ACeS publications on Facebook

# USER INTERACTION WITH ACES PAGES

In total, users reacted to the publications with 6.906 "likes", 114 "comments" and 2.172 "shares". However, only three ACeS have reactions in all publications (Table 5). In ACeS Douro Norte we observed 209 publications without any reaction and in ACeS Entre Douro e Vouga II Aveiro Norte 151 publications. Let's remember that both are the ACeS with the highest number of publications in total. The absence of reaction may demonstrate lack of interest in the content made available (in 380 publications).

Name of ACES	Publications without user feedback (No.)	Publications in total (No.)
ACeS Alentejo Central	10	198
ACeS Cávado I - Braga	0	121
ACeS de Entre Douro e Vouga II Aveiro Norte	151	605
ACeS Douro Norte	209	666
ACeS Douro Sul	0	29
ACeS Grande Porto - Santo Tirso/Trofa	0	43
ACeS Oeste Norte	9	59
ACeS Porto Ocidental	1	305

Table 5: Publications without user feedback by ACeS

The comments left by users (Figure 4) were positive in 96 publications, neutral in 13 and negative in five cases (three visible and two hidden comments).



Figure 4: Example of comments in publications

Visitors to the ACES pages published a total of 16 publications visible on the communities tabs of the pages under review and we did not record any negative content in any of these interactions.

# CONCLUDING REMARKS

This article aimed to analyse how the Agrupamentos de Centros de Saúde (ACeS) are present on Facebook, based on the idea that this communication channel can contribute to the fulfilment of their organisational missions with regard to health promotion and disease prevention.

However, it should be noted that only eight of the 55 Agrupamentos de Centros de Saúde (ACeS) are present in this social networking site, which may indicate that the actors responsible for primary health care in Portugal do not recognise the value of communication nor the potential of this new communication channels as privileged vehicles to communicate with their audiences.

Moreover, ACeS with facebook pages have a reduced expression, in terms of followers, ranging from 384 people to 2.305 people.

The research also suggests, for ACeS present on Facebook, a lack of capacity to generate their own content, since 70% of the publications are shared from the other Facebook pages or shared from links to other websites.

This result leads us to argue that ACeS might perceive social networking sites as a tool for the dissemination of health-related information. This conclusion is in line with a study conducted in 2012 with public health departments, which confirmed that these services used social networking sites as another channel to distribute information, instead of creating conversation or involvement with the audience (Thackeray, Neiger, Smith & Van Wagenen, 2012).

The survey also points to a low level of interactivity between the ACeS and their followers, since only around 10% of the comments recorded were answered by the institution.

This is in line with the research of Macnamara (2014) who showed that most organizations are adopting social networks but not the practices of social networks: "we continue to apply mainly mass communication practices, unidirectional" (p.190).

In general, we have observed a concern with the propagation of messages that contribute to health promotion and disease prevention, whether associated with ephemerides or associated with specific initiatives or times of the year, such as the prevention of influenza in winter and the prevention of dehydration in summer, or the importance of vaccination.

Only a minority of publications use video, contrary to expectations, given that, as Postman (2009) argues, the convergence of low-cost camcorders, video editing software and free online services for publishing, sharing and viewing video has boosted the creation of millions of hours of video content generated on social networking sites.

We also found that in 2018, in the ACeS under analysis, no event was created in the tab that Facebook makes available for this purpose, despite the fact that 296 publications on the feeds pages were related to initiatives.

The lack of optimisation of the presence in this social networking sites, observed in this study, seems to suggest that there are no communication and/or public relations professionals in the organisational structures of the Agrupamentos de Centros de Saúde (ACeS). This finding runs counter to the current trend in the rest of the world, where there is a sharp growth of public relations professionals working in the health sector, in government entities (Place & Varderman-Winter, 2016).

It seems possible to affirm that we are very far from finding a notion of communication in its strategic function or with the intention of contributing to change (Cornelissen, 2017; Eiró-Gomes & Nunes, 2013) that allows and enhances the relationship of these institutions with their audiences, through social networking sites.

From the perspective defended by Mafalda Eiró-Gomes (2017):

communication is not a mere prop, an addendum, or something that is used in a time of distress (e.g. lack of funds or reputational damage), but rather a way of being and thinking, a founding element of the organizations themselves, totally intertwined in their practices and constitutive of their policies. (p. 6)

According to this idea and given its focus on the publics and the pursuit of objectives and fulfillment of the organizational mission, it seems essential that those responsible for primary health care urgently recognize the role of public relations and communication in their institutions.

As a consequence of this research, and following what Springston and Lariscy (2010) have already advocated, we believe that the ACeS should place public relations as a central element in the development of messages that enable them to achieve their organizational missions and, thus, contribute to health promotion and disease prevention.

Often the conclusion of one investigation is no more than the beginning of another. An analysis of the reasons justifying the lack of investment or the non-inclusion of social networking sites as channels of communication for the fulfilment of the mission and objectives of these institutions will remain as a future perspective for research.

In the case of ACeS that are currently present on Facebook, it is expected in the future to understand the objectives of that presence and the qualifications of the people responsible for managing those pages. As most of the publications are shared from the pages of the Portuguese health service (SNS) and the Direção-Geral da Saúde, the analysis of the contents available on both pages will be left for future studies.

It may also be relevant to analyse whether the functional units of the ACeS, such as family health units, community care units and public health units are present in the social networking sites and what kind of communications/relationships they develop in these platforms.

Translation: Andreia Garcia and Mafalda Eiró-Gomes

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#### **BIOGRAPHICAL NOTES**

Andreia Garcia has got a degree in Business Communication from the School of Social Communication of Polytechnic Institute of Lisbon. She has got a master's degree in Health Communication from the Medical School of University of Lisbon. She is a PhD student in Communication Sciences at ISCTE-IUL. She is an Invited Professor in the curricular units of Strategy in Public Relations and Relationship with the Media, in the ESCS-IPL. She has worked for more than 15 years in communication agencies as a specialist consultant in the health sector. She is the founder and general director of the company Miligrama Comunicação em Saúde.

ORCID: https://orcid.org/0000-0002-4116-5667

Email: agarcia@escs.ipl.pt

Address: Escola Superior de Comunicação Social. Campus de Benfica do IPL. 1549-014 Lisboa, Portugal

Mafalda Eiró-Gomes holds a doctorate and a master's degree in Communication Sciences from NOVA University of Lisbon. Coordinating Professor of Pragmatics and Public Relations at the School of Social Communication, Polytechnic Institute of Lisbon, where she teaches since 1991. Consultant for communication, *pro bono*, of several civil society organizations.

ORCID: https://orcid.org/0000-0002-5542-6995

Email: agomes@escs.ipl.pt

Address: Escola Superior de Comunicação Social. Campus de Benfica do IPL. 1549-014 Lisbon, Portugal

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